DOCUMENT RESUME

ED 355 706 EC 301 954

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TITLE Low-Incidence Special Education Teacher Preparation: A Supply and Capacity Pilot Study.
INSTITUTION Illinois State Univ., Normal. Dept. of Specialized Educational Development.
SPONS AGENCY Office of Special Education and Rehabilitative Services (ED), Washington, DC. Div. of Personnel Preparation.
PUB DATE 92
CONTRACT H029K00033
NOTE 69p.
PUB TYPE Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Disabilities; Elementary Secondary Education; National Surveys; *Preservice Teacher Education; Questionnaires; *Teacher Certification; Teacher Education; *Teacher Recruitment; *Teacher Supply and Demand

ABSTRACT

This study was designed to obtain information on the national supply of special education teachers of low incidence disabilities including training program capacity, individual training program characteristics, and projections of numbers of program graduates. A pilot survey instrument was developed and completed by 233 low incidence area special education teacher preparation programs. Areas surveyed were hearing impaired, deaf-blind, early childhood special education, visually impaired, multihandicapped, physically handicapped, bilingual special education, trainable mentally handicapped, and severe/profound impairments. Survey questions covered institutional program information, certification practices, student recruitment and retention, program capacity, graduate follow-up, and supply/demand projections. Findings are presented in narrative and tabular form according to overall program composites, by individual low-incidence disability area, and by topics of questions. Conclusions suggest specific areas of concern: institutional and State certification practices, program training capacity and graduates follow-up, and student recruitment and retention. Appendices include the survey instrument, a listing of the programs responding to the survey, and results of a follow-up survey of nonrespondents. (Contains 11 references.) (PB)

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LOW-INCIDENCE SPECIAL EDUCATION TEACHER PREPARATION: A SUPPLY AND CAPACITY PILOT STUDY

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EC 301954

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This project was funded by the U.S. Department of Education,
Office of Special Education Programs, Division of Personnel Preparation,
Grant No. H029K00033, Janice S. Ancarrow, Project Officer

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necessarily reflect the positions of the U.S. Department of Education,
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1992

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ABSTRACT

Recent attention has been focused on the National supply of teachers in both general education and special education. Well documented discussions concern the lack of specific, accurate data on the numbers of special education teachers available, the number of teachers in preparation, and other factors affecting teacher availability. Related concerns focus on (1) identifying the need for personnel in various disability areas, (2) identifying the capacity of the Nation's colleges and universities to prepare special education and related services personnel, (3) State certification practices affecting personnel preparation, and (4) projections of future supply of personnel.

The present study was designed to obtain information on the above concerns plus training program capacity, individual program characteristics, and projections of the number of program graduates. A pilot survey instrument, "Personnel Preparation Program Supply and Capacity Survey," was developed and sent to low-incidence area special education teacher preparation programs. Low-incidence program areas were chosen as a smaller subset of the larger field of special education training programs because of the paucity of teacher supply data in these areas. The areas surveyed were hearing impaired, deaf-blind, early childhood special education, visually impaired, multihandicapped, physically handicapped, bilingual special education, trainable mentally handicapped, and severe/profound impairments. Survey questions were clustered under six topics closely related to the supply of new teaching personnel. The topics chosen were (1) institutional program information, including present and projected number of graduates, (2) certification practices, (3) student recruitment and retention, (4) program capacity, (5) graduate follow up, and (6) supply/demand projections.

Findings are presented in narrative and tabular form according to overall program composites, by individual low-incidence disability area, and by each of the six topical areas listed above. Conclusions and implications for National practice are provided, as well.

ACKNOWLEDGEMENTS

The authors wish to acknowledge the valuable assistance and counsel in the development of this project and report provided by a number of colleagues. First, we wish to thank Ms. Janice Ancarrow, Division of Personnel Preparation, Office of Special Education Programs, for her guidance in statistical interpretation and extensive manuscript reviews. Her assistance has been invaluable. She currently serves as project officer for the Special Education Supply of Preservice Educators Project. Appreciation is also expressed for the counsel of Dr. Tesa Bunsen, previous project officer. Thanks is also due to Dr. Norman Howe, Division of Personnel Preparation, for his encouragement to pursue the study of special education supply and demand issues.

A special note of appreciation is extended to Drs. William Geiger, Paul Lauritzen, and Judy Smith-Davis for their valuable contributions in the development of the pilot survey instrument and for consultation on project activities. Their input has served to strengthen the overall product.

The assistance and input from colleagues at Illinois State University is much appreciated. In particular, the assistance of Dr. Patricia Klass in statistical design, data interpretation, and manuscript preparation was invaluable. Drs. Robert Heiny and Edward Hines provided critical reviews of the manuscript as it developed.

To our colleagues and consultants, we are indebted and render a grateful thank you.

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LOW-INCIDENCE SPECIAL EDUCATION TEACHER PREPARATION: A SUPPLY AND CAPACITY PILOT STUDY

What is the capacity of the Nation's colleges and universities to prepare special education teachers and related services personnel? Little concrete, nationally reported data are available concerning the capacity of institutions of higher education to train teachers who are certified in the various disability areas. Related concerns of teacher shortage, attrition, and supply tend to obfuscate the measurement of capacity. Additionally, the need for enhanced knowledge of training program characteristics, certification practices, student recruitment and retention, and graduate follow up has received State and National attention.

BACKGROUND

The personnel concept most closely related to capacity is the new supply of personnel being prepared to enter the job market. A major though inadequate measure of teacher supply is the number of degrees conferred during a given period of time. The national repository for this information is the Integrated Postsecondary Education Data System (IPEDS), formerly known as the Higher Education General Information System (HEGIS), maintained by the National Center for Education Statistics, U.S. Department of Education. In a ten-year review of HEGIS data on special education degree awards (1975-76 to 1984-85), Bowen (1987) found (1) a consistent drop of 500 to 1,000 special education teachers being graduated per year; (2) the number of degree awards had dropped steadily from 1976 to 1985; and (3) the total number of degrees awarded in special education appears to be dropping rapidly. The deteriorating situation in training capacity is further described by Boe (1990) who reported that the number of bachelors and masters special education graduates declined from 23,000 in 1983-84 to 16,000 in 1987-88, a 30.43 percent loss.

These data, along with the fact that a second or third certification for the same teacher may cause overcounting of the existing number of teachers, causes concern about the number of teachers being trained. In general it appears that the total national supply of new degree awards may not meet the existing or projected need.

Concern for the reported shortage of qualified personnel in special education and related services has been reflected in both the Education of the Handicapped Act of 1986 (P.L. 99-457) and the Education of the Handicapped Act Amendments of 1990 (101-476). Both require that in making grants to prepare personnel in

special education, the Department of Education must base the determination of training awards on information relating to the present and projected need for personnel to be trained based on identified State, regional, or national shortages and the capacity of institutions and agencies to train qualified personnel. Although the merits of having data available on the present and projected need for special education personnel and on the capacity of institutions to produce these personnel are obvious, significant gaps occur in both State and national knowledge about these issues. There are well documented statements and discussions concerning the national lack of specific, accurate data on the numbers of special education teachers available, the numbers of teachers in preparation, and other factors affecting teacher availability (Bowen, Butler, Jones, Bresco, & Huang, 1991; Geiger, 1989; Haggstrom, Darling & Hammond, & Grissmer, 1988; Lauritzen, 1990; McLaughlin, Smith-Davis, & Burke, 1986; Smull & Bunsen, 1989).

To obtain a more accurate indication of training program capacity, areas of training, and number of teachers needed in the near future, individual institutional training programs and State teacher certification officers should be surveyed directly. This study addresses these issues through the development of a pilot instrument to survey a sample of special education teacher preparation programs on six topics closely related to the supply of new teaching personnel. The topics chosen for this investigation were (1) institutional program information, including present and projected number of graduates; (2) certification practices; (3) recruitment and retention; (4) program capacity; (5) graduate follow up; and (6) supply/demand projections. These topics were investigated in the present study and are reported here.

METHOD

A central goal for the first year of project operation was to develop and pilot a prototype preservice supply and capacity instrument for use in obtaining information from institutions for higher education (IHEs) about the present and projected supply of preservice special educators eligible for initial certification. The prototype IHE Supply and Capacity Instrument was developed during the fall of 1990 and early spring of 1991. A copy of this survey instrument is located in Appendix A.

The target group of institutions identified to receive the survey was special education personnel preparation programs that offer teacher preparation/certification in low-incidence disability areas. For the purpose of this study, low-incidence programs were identified as those programs that collectively serve less than ten percent of students identified as receiving special education services in the schools. Traditionally, these programs have been identified as multihandicapped, hearing impaired, orthopedic and other health impaired, visually impaired, and deaf-blind.

Each of these program areas serves less than two percent of the school-age special education population. In addition, the areas of early childhood special education, bilingual special education, trainable mentally impaired and severe/profound impairments were added to the program areas to be surveyed. These were viewed as representing new and developing areas of training, or as areas that have a substantial identity at the training program level and still meet the general definition for low-incidence programs.

The National Directory of Special Education Personnel Preparation Programs (Blackhurst, Doty, Geiger, Lauritzen, Lloyd & Smith, 1987) was used to locate teacher preparation programs that were specifically identified as offering teacher preparation in one or more low-incidence disability areas. Specific to the focus of this study, nine low-incidence disability areas of teacher preparation were identified: hearing impaired, deaf-blind, early childhood handicapped, visually impaired, multihandicapped, orthopedic/other health impaired, bilingual special education, trainable mentally handicapped, and severe/profound.

Four hundred two training programs were identified in the above-named low-incidence areas based on program descriptions that had been provided for listing in the National Directory (Blackhurst, et. al., 1987). The pilot survey was mailed to the program coordinator of each of these low-incidence programs. Because of a limited listing of programs in the areas of deaf/blind, bilingual special education, visually impaired, hearing impaired, and multihandicapped, 29 additional programs were identified in these areas through sources such as the American Foundation for the Blind and American Annals of the Deaf. A total of 431 pilot surveys was sent.

Of the 431 surveys sent to training program coordinators, 46 surveys were reported as out of scope. The term 'out of scope' was used to identify those programs that were described as having been terminated or nonexistent. The corrected number of surveys sent was 385. Of the 385 programs, 233 surveys were returned for an overall return rate of 60.5 percent. (See Table 1.) A list of the teacher training programs that participated in the survey is provided in Appendix B.

In contrast to the program listings in the National Directory (Blackhurst, et al., 1987), 48 programs were identified as misassigned. The term 'misassigned' was used to identify program respondents who identified themselves with another program designation to conform to their view of the type and scope of the preparation offered in contrast to the programs listed in the national directory. The 48 surveys identified as misassigned were given a program area designation as generic. The term 'generic' was applied to those surveys wherein respondents indicated that their state certification standard allowed their program graduates to teach children and youth with a wide range of disabilities, including those identified as low-incidence handicapped. Programs in the generic area produce graduates who

Table 1
Summary of Program Areas Surveyed and Rate of Return

	Total Surveys Sent	Surveys Misassigned	Surveys Reported out of Scope	Corrected Number Sent	Number of Surveys Returned	Percentage of Return
Hearing Impaired	95	9	20	66	58	87.9
Deaf-Blind	4			4	4	100.0
Early Childhood Special Education	80	3	3	74	26	35.1
Visually Impaired	48	2	10	36	29	80.6
Multihandicapped	10			10	10	100.0
Physically Hand.	37	5	6	26	9	34.6
Bilingual Sp. Ed.	7			7	7	100.0
Trainable Ment. Impaired	44	10	3	31	14	45.2
Severe/Profound	106	19	4	83	28	33.7
Multicategorical/ Generic				48*	48	
Total	431	48	46	385	233	60.5

* Surveys were not sent initially to programs described as multicategorical/generic. Forty-eight of the respondents described their program area as being generic in training focus rather than categorical as listed in the National Directory. The programs that were identified as generic were then added as a separate program area.

are certified to teach children from those with the most mild handicaps to the most severely involved. The generic program area may also be referred to as noncategorical, meaning that more than one discrete category is included in the label. Therefore, these programs are not easily classified as producing graduates in only one disability area.

The first mailing of the survey to program area coordinators was sent on February 27, 1991. A follow-up letter and survey were sent to nonresponding programs on March 27, 1991. A third contact, a telephone interview, was initiated between June and August 1991. In this follow up, a shortened form of the questionnaire was used; some items in the mailed survey were eliminated because of the length of the survey. Thus, item response rates are based either on the combined mail and telephone surveys (n=233) or on mailed responses (n=167) alone.

Surveys were sent to personnel preparation programs in 49 states. Alaska was not represented as no programs were identified that offered teacher preparation in specific low-incidence areas. Of the 49 States, the frequency of training programs receiving surveys per State ranged from one to 38. After training programs were identified by type of low-incidence area and by State, a frequency of responses by region of the country was conducted. Four regions, commonly used by the Bureau of the Census, were identified. They are northeast, south, midwest, and west. Of the 385 surveys, 52 (13.5 percent) were sent to States in the northeast, 130 (33.8 percent) were sent to the south, 129 (33.5 percent) were sent to the midwest, and 74 (19.2 percent) were sent to the west. It should be noted that this survey did not seek to sample training programs by State or region of the country. The purpose of the survey, as stated earlier, was to obtain program information from all low-incidence personnel preparation programs found in the National Directory (CEC, 1987) supplemented by a list of newer programs.

Responses to survey items were coded and analyzed using the Statistical Package for the Social Sciences (SPSS, Version 4.0) data analysis program. Analyses are reported in the 'Results' section including percentages and various measures of central tendency and variability. Data are reported as a composite of all program area responses and, in some instances, separately for each of the nine low-incidence areas plus the generic area.

Limitations. A number of problems were encountered that limited the location, acquisition, or utilization of program information. Some of these problems are identified briefly here. First, difficulties emerged in identifying some existing training programs, particularly in the areas of deaf-blind, hearing impaired, and bilingual special education. Only one training program in deaf-blind was listed in the National Directory (Blackhurst, et al., 1987), but more programs in this area were known to exist in 1991. A number of deaf-blind training programs were

located under the area of visually impaired; some programs in this area prepare teachers intermittently. Certain other programs in the deaf-blind area that were previously funded through the Division of Personnel Preparation, Office of Special Education Programs, had been discontinued. A number of hearing impaired training programs were not surveyed initially because they were not associated with a special education department or program. Instead they were located in a different administrative unit and/or program, such as speech pathology or audiology, and were not reflected on national special education program listings. Bilingual special education is a newer training area wherein preparation programs have been recently established and, therefore, have not yet been reported on national listings of teacher preparation programs.

Second, difficulties were encountered in contacting certain programs because of incomplete or erroneous addresses, program termination, or lack of program identification. Seven survey letters were returned for lack of a correct address. Thirty-nine other surveys were identified as being out of scope because of program phase out, program termination, or program name not recognized by the institution. Program phase-out was especially noted for visually impaired and hearing impaired training programs.

Third, data acquisition problems were encountered when respondents did not provide information for certain survey items. For a particular item, a respondent could have provided no answer, or could have assigned a zero as an answer. If no answer was given, the data element was counted as "missing"; if a zero was recorded, the answer was counted in the number of valid responses. In general, response to the individual survey items was adequate. For certain items, however, lower levels of response occurred and are indicated in the discussion. Aggregated responses to certain items yielded questionable data. For example, respondents were asked to indicate numbers of faculty by gender, ethnic background, and handicapping condition. Many respondents did not complete this information and did not provide specific numbers. Because the item response rate was inadequate, these items are not reported.

Fourth, some program information was aggregated, such as number of students in the institution and number of students majoring in special education. Because at least 25 institutions had multiple low-incidence training programs, duplicate counts of the same students were thereby entered into the data pool. When reporting of aggregate data would constitute an overcounting of individuals, these data are omitted from the tables in the "Program Information" discussion in the results section.

RESULTS

The IHE preservice supply and capacity survey instrument was sent to program coordinators in nine low-incidence disability program areas. Completed surveys totaled 233, which forms the basis for the statistical analysis. Percentages reported are based on the number of respondents (233) divided by the total number of surveys sent (385), yielding an overall return rate of 60.5 percent. A follow-up study of nonrespondents was conducted using a random sample of 35 percent of nonrespondents (n=54). A discussion of this study is provided in Appendix C. Relevant information for each of the six content areas contained in the survey is presented below.

PROGRAM INFORMATION

A wide variety of questions was asked of the survey respondents regarding the type and size of their college or university, size of specific special education training programs, and number of present and projected graduates. The number of full- and part-time special education faculty was requested, as well as type of program accreditation. Information from each of these areas is discussed below. Data are presented in tables or figures. Because of the self-reported nature of certain of the numerical data, particularly noted for Tables 2 through 4 and Table 6, wide variability and large standard deviations are reported. For this reason, minimum and maximum numbers have been included in these tables to show this variability among programs.

Institution Description. Three questions were asked regarding the type and setting of the institution. The questions sought information on type of institution (public and private); whether the location was rural or urban; and whether the campus was considered commuter or residential. Regarding the type of institution (public; private, sectarian; or private, non-sectarian) a majority of institutions in the survey were public (78.2 percent; n=301). Private sectarian and non-sectarian institutions comprised 21.6 percent (n=83) of the total. The name of one institution was withheld, and institutional characteristics could not be identified.

Regarding setting of the institution, 21.6 percent (n=83) were identified as rural, and 37.4 percent (n=144) were identified as urban. Concerning the topic of commuter or residential setting, 4.2 percent (n=16) were identified as commuter and 54.5 percent (n=210) were identified as residential.

Low-Incidence Programs. The IHE Supply and Capacity Survey was sent to college and university teacher preparation programs that had been previously identified as having one or more certification or degree programs in low-incidence areas of impairment. The information presented in Table 1 reflects the total

number of surveys sent to specific low-incidence areas, percentage of return by area, and overall return rate. Three areas with a small number of surveys (deaf-blind, multihandicapped, and bilingual special education) had a 100 percent return rate. Two of the remaining areas had a return rate of 80 percent or higher. These areas were hearing impaired (87.9 percent; n=58) and visually impaired (80.6 percent; n=29).

Faculty Numbers. Survey respondents were asked to provide the number of full- and part-time faculty associated with their department (total faculty) and with their specific low-incidence program area. The resultant data are presented in Table 2. When the number of full-time faculty in all areas of special education (n=1,948) is compared with the full-time faculty in low-incidence areas (n=556), 28.5 percent of the faculty appeared to be represented in the low-incidence composite. When full- and part-time faculty are combined, approximately 33 percent of the special education department faculty appear to be represented in the low-incidence composite.

Table 2

NUMBER OF INSTITUTIONAL FACULTY

	Total Department Faculty		Low Incidence Faculty	
	Full-time	**Part-time**	**Full-time**	**Part-time**
Mean	9.1	5.5	2.6	2.4
sd	8.0	7.1	2.8	3.0
Sum	1,948	893	556	390
Minimum	0	0	0	0
Maximum	55	40	18	28
Missing	20	72	21	71
n of responses	213	161	212	162

(n=233)

Student Enrollment. Information on student enrollments in all special education teacher preparation programs in general, and for the combined low-incidence programs, is presented in Table 3. The enrollment of student majors in low-incidence programs appears to be considerably lower than the total for all special education programs. When the mean number of students enrolled in low-incidence programs (M=65.9) is compared to the mean number of students enrolled in all areas of special education (M=249.9), approximately 26 percent of the students appear to be enrolled in low-incidence training programs. From this comparison it appears that approximately one-fourth of the students enrolled as special education majors are enrolled in low-incidence programs.

Table 3

NUMBER OF STUDENTS MAJORING IN SPECIAL EDUCATION AND IN LOW-INCIDENCE PROGRAMS

	No. Students in Institution	No. Student Majors in Special Education	No. Student Majors in Low Incidence Programs
Mean	15,293.8	249.9	65.9
sd	11,742.3	310.4	131.2
Sum	**	**	15,151
Minimum	500	5	0
Maximum	58,000	2,500	1,671
n of responses	230	218	230

(n=233)

** These numbers were not reported because of multiple counts of students from certain institutions.

Number of Graduates, 1990. A central objective of this study was to examine the present and projected supply of personnel being prepared in specific low-incidence areas of special education by levels; e.g., bachelor's, graduate certificates, master's, and doctorates. From the returned surveys, a total of 3,883 students were reported as prepared in low-incidence programs across four levels of preparation during 1990. As shown in Table 4, almost as many personnel were prepared at the master's level (n=1,415) as were prepared at the bachelor's level (n=1,699). The graduate certificate level, which is typically not a degree program, reported 717 students. Doctoral degrees reported for the year totaled 52. Relevant data broken down by program area and degree level are presented in Tables 5 and 6.

Table 4

COMBINED NUMBER OF LOW-INCIDENCE AREA GRADUATES, 1990

	Bachelor's	Graduate Certificate	Master's	Doctorate
n of Graduates	1,699	717	1,415	52
Mean	11.2	6.8	7.7	0.7
sd	13.9	8.9	8.5	1.4
Minimum	0	0	0	0
Maximum	100	50	50	8
n of responses	152	105	185	73

(n=233)

One hundred fifty-two programs (39.5 percent), reported bachelor's degree programs, 48.1 percent (n=185) reported master's degree programs, and 18.9 percent (n=73) reported doctoral degree programs. More programs (17.8 percent) reported master's degree level training than reported bachelor's degree programs. This finding matches a national trend in which somewhat more training programs appear to be offered at the master's degree level than at the bachelor's level.

The number of graduates for each of ten specific low-incidence training programs for 1990 is provided in Table 5. A wide variation was found in the number of graduates across program areas. The largest number of graduates across certification and degree areas was reported for generic programs (n=1,430). The next largest number of graduates was reported for hearing impaired programs (n=714).

Number of Graduates Projected for 1993. Program respondents were asked to project the number of trainees expected to graduate in 1993. A listing of combined numbers of graduates in low-incidence training programs is given in Table 6. A total of 4,526 students was projected to be trained in 1993 across four levels of preparation. Projections included 1,871 bachelor's degrees to be conferred, 690 graduate certificates, 1,869 master's degrees, and 96 doctorates. Fewer program coordinators supplied numbers for this question than for the 1990 number of graduates. The lower response rates for the 1993 projection of graduates may be related to coordinators' statements that it was difficult to project the number of graduates expected three or more years into the future.

Program coordinators projected more low-incidence special education graduates for 1993 than for 1990 at all degree levels: bachelor's, graduate certificates, master's and doctorates. When comparing the raw data in Tables 5 and 7, the projected increase of graduates is apparent at all degree levels except for the graduate certificate. However, when dependent t tests were conducted to compare projections for programs that reported both 1990 and 1993 data, an increase in projected graduates was observed at all four degree levels, including the graduate certificate level. For bachelor's programs, significantly more graduates were projected for 1993 (M=14.7) than for 1990 (M=11.6), t (125)=6.59, p = .0005. At the graduate certificate level, significantly more graduates were projected for 1993 (M=9.2) than for 1990 (M=6.8), t(74)=3.32, p = .001. For master's programs, significantly more graduates were projected for 1993 (M=10.8) than for 1990 (M=7.4), t (165)=7.3, $p < .0005$. Also, significantly more graduates at the doctoral level were projected for 1993 (M=1.3) than for 1990 (M=.9), t (54)=3.6, p = .001.

Table 5

NUMBER OF LOW-INCIDENCE GRADUATES BY AREA, 1990

Program	Bachelor's		Graduate Certificate		Master's		Doctorate		Total Graduates
	n of responses	n of graduates	n of responses	n of graduates	n of responses	n of graduates	n of responses	n of graduates	
Hearing Impaired (n=58)	39	386	18	67	45	257	13	4	714
Early Childhood Handicapped (n=26)	16	202	14	92	19	144	10	5	443
Visually Impaired (n=29)	20	59	17	49	25	121	17	7	236
Multihandicapped (n=10)	7	33	5	10	10	36	2	-	79
Orthopedic/Physically Handicapped (n=9)	6	140	4	15	7	13	5	4	172
Trainable MR (n=14)	12	93	6	26	8	35	2	-	154
Severe/Profound (n=28)	15	70	19	184	27	308	10	7	569
Bilingual Special Education (n=7)	1	-	1	14	6	44	2	4	62
Deaf/Blind (n=4)	-	-	1	12	3	5	1	-	17
Generic (n=48)	36	716	20	248	35	445	11	21	1,430
Total Graduates		1,699		717		1,408		52	3,876

(n = 233)

Table 6

NUMBER OF LOW-INCIDENCE GRADUATES PROJECTED, 1993

	Bachelor's	Graduate Certificate	Master's	Doctorate
n of Graduates	1,871	690	1,869	96
Mean	14.7	8.9	10.9	1.4
SD	16.3	9.8	9.9	1.9
Minimum	0	0	0	0
Maximum	100	50	60	10
n of responses	127	77	171	65

(n=233)

Information specific to the number of graduates projected for 1993 in ten low-incidence programs is presented in Table 7. Similar to the 1990 degree numbers, a wide variation in the number of graduates across program areas was projected. The three program areas with the largest number of projected graduates were generic (n=1,477), deaf and hearing impaired (n=974), and severe/profound (n=582).

The number of projected 1993 graduates was compared to the number of graduates reported for 1990 across degree levels and program areas. When dependent *t* tests were run to compare the projected number of graduates in 1993 over 1990 graduates for programs that reported both years, a significant increase at the .05 level occurred in several program areas at all degree levels. Increases for the projected number of graduates in 1993 over 1990 were significant at the .05 level for the following areas and degree levels:

Bachelor's - Hearing Impaired, $t(36) = -3.36$, $p = .002$, mean difference = -3.5
Early Childhood, $t(10) = -3.13$, $p = .011$, mean difference = -3.3
Orthopedic and Physically Impaired, $t(5) = -2.16$, $p = .048$, mean difference = -2.5
Trainable, $t(7) = -2.54$, $p = .039$, mean difference = -2.6
Generic, $t(28) = -3.76$, $p = .001$, mean difference = -4.5

Master's - Hearing Impaired, $t(42) = -5.08$, $p = .000$, mean difference = -3.7

Table 7

NUMBER OF LOW-INCIDENCE GRADUATES BY AREA, 1993

Program	Bachelor's		Graduate Certificate		Master's		Doctorate		Total Graduates
	n of responses	n of graduates	n of responses	n of graduates	n of responses	n of graduates	n of responses	n of graduates	
Hearing Impaired (n=58)	37	516	11	53	43	391	12	14	974
Early Childhood Handicapped (n=26)	11	162	9	57	18	221	10	8	448
Visually Impaired (n=29)	16	70	15	83	24	188	13	12	353
Multihandicapped (n=10)	5	45	4	16	9	58	3	3	122
Orthopedic/Physically Handicapped (n=9)	6	155	4	47	7	47	5	7	256
Trainable MR (n=14)	8	82	4	25	8	58	2	-	165
Severe/Profound (n=28)	14	87	14	174	23	305	8	16	582
Bilingual Special Education (n=7)	1	6	1	19	7	102	3	7	134
Deaf/Blind (n=4)	-	-	-	-	3	15	-	-	15
Generic (n=48)	29	748	15	216	29	484	9	29	1,477
Total Graduates		1,871		690		1,869		96	4,526

(n = 233)

	Early Childhood, $t(15) = -2.85$, $p = .012$, mean difference = -4.4
	Visually Impaired, $t(23) = -2.94$, $p = .007$, mean difference = -2.8
	Multihandicapped, $t(8) = -3.42$, $p = .009$, mean difference = -2.8
	Bilingual, $t(5) = -3.32$, $p = .021$, mean difference = -4.7
Graduate Certificate	Visually Impaired, $t(12) = -2.77$, $p = .017$, mean difference = -3.4
Doctoral	Severe/Profound, $t(7) = -3.21$, $p = .015$, mean difference = -1.1

Program Accreditation. Respondents were surveyed on the topic of program recognition by a national or regional accrediting body. Two hundred twenty-two respondents (57.7 percent) stated that their program(s) were recognized by an accrediting body. Only five of the respondents (1.3 percent) said their program was not recognized; 158 (41.0 percent) did not provide a response. Nine specific accrediting organizations were identified. The organizations named were: Council for Exceptional Children, Council on Education of the Deaf, Middle States Association of Colleges and Schools, National Council for the Accreditation of Teacher Education, New England Association of Schools and Colleges, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges.

The major accrediting body identified was the National Council for the Accreditation of Teacher Education (NCATE) as reported by 139 respondents (36.1 percent). The next most frequent accrediting body reported was the Southern Association of Colleges and Schools (SACS), with 4.7 percent (n=18) of the total (n=385).

CERTIFICATION

Each respondent was asked several questions concerning the type of certification available to program graduates and how changes in State special education teacher certification processes would affect the institution's training program. Respondents were also asked how the implementation of more stringent standards of certification or teacher certification tests might affect the enrollment in

their program area. High item response rates to the five questions in this part of the survey from the 233 respondents were obtained. Response rates ranged from 88.8 percent to 98.3 percent. Responses to the questions asked are discussed in the following narrative in terms of percent response of the total number of surveys sent (n=385).

How could the State special education teacher certification for your program area be described? One hundred twenty-eight respondents (33.2 percent) described their program area as being generally categorical in nature. Fifty-eight (15.1 percent) described their program area as a mixture of categorical and noncategorical. Thirty-eight respondents (9.9 percent) described their program areas as being almost entirely noncategorical; five (1.3 percent) said they have another configuration. One hundred fifty-six (40.5 percent) did not answer the survey or were missing the item.

Is the master's degree required for initial certification in your program area? One hundred ninety-nine respondents (51.7 percent) said the master's degree was not required for initial certification in their program area. Twenty-eight (7.3 percent) said the master's degree was required for initial certification. Possession of the master's degree for initial certification in the low-incidence areas appears unnecessary for the majority of low-incidence training programs.

Would the implementation of more stringent standards of certification or teacher certification tests reduce enrollment in your program area? One hundred fifty-one respondents (39.2 percent) said that the application of more stringent certification requirements would not reduce the enrollment of students in their program. Sixty-eight (17.7 percent) of the respondents said that more stringent certification requirements would reduce program enrollment.

How do certification requirements in your State compare with those in effect five years ago? One hundred four respondents (27.0 percent) indicated that present State teacher certification requirements were more stringent than those in effect five years ago. Ninety-five respondents (24.7 percent) indicated that the State certifications were about the same. Eight (2.1 percent) respondents indicated that the requirements were less stringent. (See Table 8 below.)

Table 8
STATE CERTIFICATION REQUIREMENTS COMPARED TO 5 YEARS AGO

	Frequency	Percent of Respondents	Percent of Total N
Less Stringent	8	3.4	2.1
About the Same	95	40.8	24.7
More Stringent	104	44.6	27.0
Omitted	26	11.2	6.8
Nonrespondents	152	--	39.5

(n=233)

Do you anticipate any major changes in your State's special education teacher certification requirements that could affect your training program area in the next five years? One hundred fifteen respondents (29.9 percent) indicated that they did not anticipate changes in their State's special education teacher certification requirements in the next five years. One hundred four (27.0 percent) respondents indicated that they did anticipate changes in their State's teacher certification requirements in the next five years.

RECRUITMENT AND RETENTION

Respondents were asked a number of questions regarding student enrollment patterns, recruitment, and retention in their program area, such as stability of enrollment, student demographic patterns, practices in student recruitment, and incentives used in recruitment.

Enrollment Stability. Seventy-nine respondents (20.5 percent) said their present program enrollment was steady or similar to the program enrollment of five years ago. Thirty (7.8 percent) said enrollment in their program was decreasing, particularly when compared to that of five years ago. One hundred fourteen respondents (29.6 percent) said enrollment in their program area was increasing. It appears that student enrollment in low-incidence areas is generally steady or increasing when compared to enrollments of five years ago.

Enrollment Demographics. Respondents were asked to give percentages of students enrolled in their program area by sex and ethnicity, and percentage of student majors who had a disability. This information is presented in Table 9. Considerable unevenness of responses occurred across these categories. Of the 167 mail respondents, the number who answered each category varied from 46 to 161. Further, because of missing data and inaccurate estimates of percentages by respondents, percentages obtained for sex and ethnicity did not total 100 percent. Some respondents clearly stated "0," meaning zero percent were enrolled with the

stated characteristic; others left the item blank, not specifying "0" but rather omitting the item. Under the condition of a nonresponse the information was marked as "missing." Others gave percentages that did not sum to 100 percent.

Table 9

DEMOGRAPHIC INFORMATION ON PERCENTAGE OF STUDENTS ADMITTED INTO TRAINING PROGRAMS

	Male	Female	Black	Caucasian	Hispanic	Disabled	Other
n of responses	149	161	127	155	91	104	46
Mean Percent	13.1	88.1	8.7	87.8	7.1	5.2	7.2
sd	14.8	13.2	15.0	18.2	13.8	9.8	14.4

(n=167)

On the item related to sex of program enrollees, the mean percentage of male students was 13.1 percent and the mean percentage of female students was 88.1 percent. For the three ethnic background groups surveyed, the largest mean percentage (87.8 percent) was reported for Caucasians. A considerably smaller mean percentage was reported for Blacks (8.7 percent) and for Hispanics (7.1 percent). The mean percentage of program enrollees reported as disabled was 5.2 percent.

Minority Student Enrollment. Respondents to a question concerning the enrollment of minority students in low-incidence programs over the last five years totaled 218. The majority of respondents (n=157; 40.8 percent) said that the number of minority students enrolled in the program area had remained about the same during the last five years. Forty-six respondents (11.9 percent) said the number of minority students had increased. Only 15 respondents (3.9 percent) said that minority enrollment had decreased. (See Table 10 below.)

Table 10

PERCENTAGE OF MINORITY STUDENTS CHANGED IN THE LAST 5 YEARS

	Frequency	Percent of Respondents	Percent of Total N
Remained Same	157	67.4	40.8
Increased	46	19.7	11.9
Decreased	15	6.4	3.9
Missing	15	6.4	3.9
Nonrespondents	152	--	39.5

Recruitment Practices. Respondents were asked to describe the recruitment of students into their training program. Five types of recruitment practices were presented in which respondents could check one or more choices. Therefore, percentages do not equal 100 percent. In general, the response rate to the recruitment questions was low for the 167 mail respondents. Responses ranged from 18.6 percent to 41.3 percent. Only 8.1 percent (n=31) of those surveyed responded that they did not need to recruit students, and 10.4 percent (n=40) indicated that they had not specifically recruited students. A somewhat higher number indicated that they had recruited minority students (17.9 percent; n=69) or had recruited for specific training areas (16.1 percent; n=62). A similar number of respondents indicated that other offices in the institution were responsible for recruitment (16.1 percent; n=62). (See Table 11 below.)

Table 11

PRACTICES IN THE RECRUITMENT OF STUDENTS INTO TRAINING PROGRAMS

	Frequency	Percent of Respondents	Percent of Total N
Do not Need to Recruit Students	31	13.3	8.1
Have Not Specifically Recruited	40	17.2	10.4
Have Recruited Minority Students	69	29.6	17.9
Have Recruited for Specific Training Areas	62	26.6	16.1
Other Offices in the Institution are Responsible for Recruitment	62	26.6	16.1

(n = 233)

Recruitment Efforts. Respondents were asked to indicate the degree of success obtained in student recruitment efforts. There were 141 respondents to this question. Eighteen respondents (4.7 percent) reported much success, 47 (12.2 percent) reported moderate success, and 49 (12.7 percent) reported some success. Twenty-seven (7.0 percent) reported minimal success with student recruitment efforts. (See Table 12 below.)

Table 12
DEGREE OF SUCCESS WITH
STUDENT RECRUITMENT EFFORTS

	Frequency	Percent of Respondents	Percent of Total N
Much	18	7.7	4.7
Moderate	47	20.2	12.2
Some	49	21.0	12.7
Minimal	27	11.6	7.0
Missing	92	39.5	23.9
Nonrespondents	152	--	39.5

(n = 233)

Recruitment Incentives. A question was asked concerning the use of incentives as a means of recruitment of students into training programs. Eighty-two respondents (21.3 percent) indicated that they had offered unique incentives as a means of recruitment into their training program. Seventy (18.2 percent) indicated that no unique incentives had been used.

Minority Recruitment. Respondents were asked if recruitment efforts had been specifically addressed to minority students. Seventy-eight respondents (20.3 percent) stated that recruitment efforts had been addressed to minority students. Eighty-two (21.3 percent) respondents stated that no specific recruitment efforts had been addressed to students of minority groups.

Retention Procedures. A question was asked concerning procedures used in student retention. One hundred six respondents (27.5 percent) indicated that retention of students in their program areas is not a problem. Thirty-nine (10.1 percent) respondents indicated that specific retention activities had been initiated in their programs. Twelve respondents (3.1 percent) indicated that no specific recruitment procedures had been instituted in their program area. (See Table 13 below.)

Table 13

TYPES OF STUDENT RETENTION PROCEDURES

	Frequency	Percent of Respondents	Percent of Total N
Retention is not a problem	106	45.5	27.5
No specific recruitment procedures instituted	12	5.2	3.1
Specific Retention activities initiated	39	16.7	10.1
Missing	75	32.2	19.5
Nonrespondents	152	--	39.5

(n = 233)

Success of Retention Procedures. Program coordinators were asked a question concerning the level of success observed with retention procedures used in their program area. A small number of respondents (n=40) answered this question (10.4 percent). The low response to this survey item precludes discussion of it.

Student Financial Support. Respondents were asked to state the percentage of students in their program areas who receive financial support. The percentage of students receiving financial assistance could be given in the areas of (1) Federal grant support, (2) State grant support, and (3) local (within institution) support. The mean percentage of students in their programs who received Federal grant support was 37.8 percent (n=113). A mean of 26.1 percent of the students in low-incidence programs (n=88) was reported to receive State grant support. Support at the local level for students in low-incidence programs was reported for a mean of 17.1 percent (n=91). (See Table 14 below.)

Table 14

PERCENT OF STUDENTS RECEIVING FINANCIAL SUPPORT

	Federal Grant	State Grant	Local Level Support
n of responses	113	88	91
Mean percent	37.8	26.1	17.1
sd	3.4	2.9	2.6

(n = 167)

PROGRAM CAPACITY

Survey respondents were asked questions concerning institutional conditions and program resources perceived as affecting the capacity to prepare students in their program area. They were also asked if recent trends in education and workplace economics were perceived as affecting their training capacity.

Institutional Conditions. For this topic, several conditions that could cause a reduction in the number of graduates were given as choices that could be checked. The choices were: cutbacks in funding, program elimination, reduction of faculty, increased costs coupled with restrictions in financial aid, caps on enrollment, cutbacks in supervision, and lower student enrollment. Mail respondents could check as many as applied. The three conditions with the highest responses were: increased costs (n=66; 17.1 percent); cutbacks in funding (n=57; 14.8 percent); and reduction of faculty (n=45; 11.7 percent). Multiple responses produced percentages totaling more than 100 percent. (See Table 15 below.)

Table 15

INSTITUTIONAL CONDITIONS CAUSING REDUCTION OF TRAINEES

	Cut-backs in Fund-ing	Pro-gram Elimi-nation	Reduc-tion of Faculty	Increased Costs with Restrictive Financial Aid	Caps on Enroll-ment	Cut-backs in Super-vision	Lower Student Enroll-ment	Other	Missing
n of responses	57	13	45	66	19	14	40	32	52
Percent of responses	34.1	7.8	26.9	39.5	11.4	8.4	24.0	19.2	31.1
Percent of total	14.8	3.4	11.7	17.1	4.9	3.6	10.4	8.3	13.5

(n = 167)

Effects of Recent Trends. Respondents were asked to indicate whether or not recent changes in population, teacher workforce, tax base, State mandates, or certification processes had significantly changed the number of students trained, or had significantly changed the number of employment requests for graduates. One hundred sixty respondents (41.6 percent) indicated that the trends listed above had not changed the number of students being trained, while 58 (15.1 percent) indicated that these trends had increased the number of students being trained in their program areas. Eighty-four respondents (21.8 percent) indicated that these trends had increased the number of employment requests for program graduates. Respondents indicating that these trends had not changed the number of employment requests for program graduates were 129 (33.5 percent).

Future Program Planning. Respondents were asked to indicate how their training programs were planning for future growth or reduction in the number of graduates produced. Data acquired from the respondents are presented in Table 16 below. Long-range planning was being utilized by 118 respondents (30.6 percent). Surveys of graduates were being conducted by 119 (30.9 percent). Eighty-six respondents (22.3 percent) stated that surveys of employers were being conducted. Multiple responses produced percentages totaling more than 100 percent. Other areas of planning, such as evaluating faculty hiring, and studying student admission policies, were reported much less.

Table 16

PLANNING FOR FUTURE PROGRAM GROWTH OR REDUCTION

	Frequency	Percent of Respondents	Percent of total N
Long-range Planning	118	70.7	30.6
Surveys of Employers	86	51.5	22.3
Studying Student Admission Policies	40	24.0	10.4
Surveys of Graduates	119	71.3	30.9
Evaluating Faculty Hiring	44	26.3	11.4
Other	40	24.0	10.4

(n = 167)

Program Resources Affecting Capacity. A question was asked about program resources and how the availability or lack of resources could affect the preparation of teachers in specific low-incidence areas. Six choices were provided wherein a program coordinator could mark all that applied. The number of respondents for each choice is the number of respondents who checked each item. Relevant information is presented in Table 17 below. The item, "Program faculty and resources would allow for more students" was selected by 111 respondents (28.8 percent). Eighty-three respondents (21.6 percent) chose the item, "Program is training to full capacity and probably will remain so." Far fewer respondents (n=27; 7.0 percent) stated that their program area resources were strained or that cutbacks in the number of students being prepared might take place. Seventy-nine respondents (20.5 percent) stated that enrollment of majors in their program area is increasing, while only eighteen respondents (4.7 percent) stated that enrollment in their program area was decreasing. A majority of the survey respondents reported that their program area was growing and that resources were generally available to sustain that growth. Multiple responses produced percentages totaling more than 100 percent.

Table 17

PROGRAM RESOURCES AFFECTING CAPACITY

	Frequency	Percent of Responses	Percent of Total N
Program is training to full capacity and will probably remain so	83	49.7	21.6
Program faculty and resources would allow for more students	111	66.5	28.8
Program resources are strained; cutbacks in number of students may take place	27	16.2	7.0
Enrollment of Majors is increasing	79	47.3	20.5
Enrollment of Majors is decreasing	18	10.8	4.7
Other Conditions	13	7.8	3.4

(n = 167)

GRADUATE FOLLOW UP

Two questions were asked concerning the follow up of program graduates. Both questions focused on employment patterns.

Follow up of Graduates. Respondents were asked if the employment or employment patterns of recent graduates were tracked. One hundred forty-two respondents (36.9 percent) stated that they track the employment of their program graduates. Twenty-one (5.5 percent) stated that employment and employment patterns of their program graduates were not tracked.

Geographic Employment Patterns. Respondents were asked to identify one or more of four geographic employment patterns descriptive of their program graduates. Relevant information is presented in Table 18 below. The majority of the respondents (105; n=27.3 percent) stated that their program graduates were located mostly in State. Forty-three respondents (11.2 percent) stated that program graduates were located within the State and adjoining States. Forty-nine respondents (12.7 percent) stated that graduates tended to stay in the general region. Twenty-eight respondents (7.3 percent) stated that their graduates did not locate in any particular geographic area. Multiple responses produced percentages totaling more than 100 percent. When survey responses were rank ordered to identify the second most frequent geographic employment pattern, the highest percentage reported (14.3 percent) was for locating in the State and adjoining States. Clearly most program graduates tend to locate in the State or in the general region in which they were trained.

Table 18

GEOGRAPHIC EMPLOYMENT PATTERNS OF GRADUATES

	Most Frequent			2nd Most Frequent		
	Frequency	Percent of Responses	Percent of Total N	Frequency	Percent of Responses	Percent of Total N
Mostly in state	105	45.1	27.3	36	15.5	9.4
In state and adjoining State	43	18.5	11.2	55	23.6	14.3
No particular geographic area	28	12.0	7.3	7	3.0	1.8
Graduates tend to stay in general region	49	21.0	12.7	12	5.2	3.1
Other	1	.43	.03	2	.86	0.5

(n=233)

SUPPLY/DEMAND

A number of questions were asked concerning the capacity of IHE's to supply special education teachers in low-incidence areas to meet local and State needs. Respondents were asked to indicate how the number of graduates in their training programs would impact local and State needs, separately, and in conjunction with other training programs in their State.

Combined IHE Supply. Respondents were asked to project whether or not the combined IHE training programs in their States could supply enough personnel to meet the current need in their low-incidence areas. One hundred sixty-nine respondents (43.9 percent) said that the combined training programs in their States could not meet the need for personnel. Sixty-one respondents (15.8 percent) said that the combined training programs in their State could meet the need.

Training Program Capacity. Respondents were asked to address the capacity of their program area to supply new personnel. Relevant information from two related questions is provided in Table 19 below. When asked if their particular low-incidence training program could supply adequate numbers of personnel to meet the need in their State, 157 respondents (40.8 percent) stated that their graduates alone could not meet the need. Sixty-three respondents (16.4 percent) stated that their program could meet the existing need for personnel. When asked if their training program could meet personnel needs only when combined with other IHE training programs in their State, 115 (29.9 percent) stated that their program would still not be able to meet the current need. Eighty-one other programs (21.0 percent) indicated that this would be possible.

Table 19

TRAINING PROGRAM CAPACITY

	Total n	Yes			No		
		Frequency	Percent of Responses	Percent of Total N	Frequency	Percent of Responses	Percent of Total N
Program can supply adequate numbers to meet State need	220	63	27.0	16.4	157	67.4	40.8
Program can supply adequate numbers only when combined with other IHE training programs	196	81	34.8	21.0	115	49.4	29.9

(n=233)

Teacher Vacancies. A question was asked as to whether or not respondents receive information from their institution's placement bureau concerning teaching vacancies in their program area. Seventy-six respondents (19.7 percent) stated that they receive this type of information from their placement office. Eighty (20.8 percent) said that this information was not provided by their placement offices.

Effect of Hiring Uncertified Personnel. Respondents were asked if they perceived for their State that school district hiring of temporary or uncertified personnel adversely affected the hiring of their program graduates. One hundred nine respondents (28.3 percent) to this question did not believe that these hiring practices adversely affected the hiring of their program graduates. A smaller number (14.8 percent; n=57) believed that the hiring of temporary or uncertified personnel negatively affected the hiring of their program graduates.

Discussion

Specific results from an analysis of surveys received from program coordinators of low-incidence disability training programs were presented in the previous section of this study. A more general discussion, including interpretation and integration of certain findings, is presented here. Discussion derives from the six sets of survey questions identified earlier (i.e., program information, certification, recruitment and retention, program capacity, graduate follow up, and supply and demand). The discussion also identifies some trends concerning the status of low-incidence special education personnel in the training pipeline.

Program Information. A wide range of program-related information was acquired from survey respondents. A synthesis of this information is presented below.

(1) The great majority (78.2 percent) of special education teacher preparation programs in the low-incidence disability areas is being offered in public, State supported institutions.

(2) On average, 66 students are being prepared (mean per program) in the typical low-incidence preparation program. Wide variability occurs, however, in students being prepared, ranging from 0 to 1,671 per program, which produces a high standard deviation (sd=131.2).

(3) Approximately 29 percent of the full-time faculty identified in this survey were represented in the low-incidence composite. About 26 percent of all student majors were enrolled in low-incidence programs.

(4) Somewhat more low-incidence preparation programs were identified that offer the master's degree than the bachelor's degree, although more students were reported to be trained at the bachelor's level.

(5) Approximately one-third of the program respondents prepare doctoral personnel.

(6) When the numbers of graduates reported for 1990 and projected for 1993 are compared across four degree areas, the projected increase of graduates in each was statistically significant at the .05 level for those programs that reported both years of data.

(7) When numbers of graduates reported in 1990 are compared with the numbers projected for 1993, significant increases were reported ($p < .05$) in the areas of hearing impaired, early childhood handicapped, visually impaired, physically handicapped, multihandicapped, bilingual special education, trainable mentally handicapped, severe/profound, and generic.

Certification Information. Five questions were asked of the respondents concerning State certification processes and how these processes are viewed as affecting their training programs. The responses are summarized below.

(1) Most low-incidence teacher preparation programs reflected a mixture of categorical and noncategorical certification;

(2) The master's degree is not required for initial certification in most low-incidence areas;

(3) No clear consensus was found as to whether:

(a) implementation of more stringent certification requirements or teacher certification tests would reduce enrollment in specific low-incidence areas;

(b) state certification standards or requirements were more stringent than those in effect five years ago;

(c) anticipated State certification requirements projected for five years in the future would affect program enrollment.

Perhaps because of the differences in State certification processes and individual training program composition, no definite effects of specific certification processes on teacher preparation in low-incidence areas were observed in this study.

Recruitment/Retention Information. A wide range of questions was asked related to student enrollment patterns, recruitment, and retention in low-incidence program areas. Major findings are summarized below.

(1) Respondents indicated that enrollment in their program areas was steady (20.5 percent) or increasing (29.6 percent).

(2) More program trainees were female (M = 88.1 percent) students than male (13.1 percent) students.

(3) The largest ethnic group of students reported was Caucasian (M = 87.8 percent); a substantially smaller group was Black (M = 8.7 percent) or Hispanic (M = 7.1 percent).

(4) Minority student enrollment was reported to be substantially unchanged during the past five years.

(5) Only 17.9 percent of low-incidence training programs reported recruitment of minority students; 16.1 percent reported recruitment for specific training areas.

(6) Some student recruitment success was reported, wherein 16.9 percent of the respondents indicated moderate to much recruitment success, while 7 percent reported minimal success.

(7) Unique recruitment incentives were offered by 21.3 percent of the respondents; 18.2 percent indicated that no unique incentives were used to recruit students.

(8) While 20.3 percent of the respondents had attempted to recruit minority students, 21.3 percent had not specifically recruited minority students.

(9) Retention of students in training programs was not viewed as a problem by 27.5 percent of the total surveyed; 10.1 percent indicated that specific retention activities had been initiated in their programs.

(10) For the respondents who described the types of available student financial support, on average, 37.8 percent of their students received Federal grant support (n=113); 26.1 percent received State grant support (n=88); and 17.1 percent received local (within institution) support (n=91).

Program Capacity. National concern has been expressed about the capacity of training institutions to prepare an adequate supply of new or additional personnel. Survey respondents provided the following picture of the capacity of programs to supply needed personnel.

(1) The conditions most frequently identified as causing reduction of trainees were increased costs with diminishing financial aid (17.1 percent), cutbacks in funding (14.8 percent), and reduction of faculty (11.7 percent).

(2) Most programs had not experienced caps on enrollment, program elimination, or cutbacks in supervision.

(3) Of those surveyed, 42 percent (N=162) indicated that changes in population, tax base, State mandates, or certification processes had not changed the number of students being trained.

(4) Whether or not these trends had specifically changed the number of employment requests for program graduates was unclear.

(5) Of those surveyed, 31 percent (N=118) indicated that they were conducting long-range planning for their programs.

(6) Institutions indicating that they were surveying graduates of their programs, as well as employers, as part of program planning were 20 to 30 percent.

(7) Twenty percent of the respondents reported that enrollments in their training programs are increasing in numbers and training is at full capacity.

(8) Of those surveyed, 28.8 percent (N=111) indicated that program faculty and resources would allow more students to be enrolled and trained.

(9) Program resources are strained, or the enrollment of majors is decreasing, was reported by 7 percent or less.

Graduate Follow Up. Survey respondents were asked to discuss follow-up activities of program graduates, as well as employment patterns of their graduates.

Approximately 37 percent of the total responding indicated that they track or follow up the employment of their program graduates. Most program graduates tended to locate in the State where they were trained or in the general region. Only 7.3 percent of the respondents indicated that their graduates did not locate in any particular geographic area.

Supply/Demand. Respondents were asked questions about the capacity of their programs to respond to State and local needs for personnel. The following emerged.

(1) Of the total surveyed, 43.9 percent indicated that training programs were not producing sufficient numbers of graduates to meet the current need in their State, whereas 15.8 percent indicated that the need could be met in their State.

(2) About 30 percent of those surveyed indicated that the combined IHEs in their State could not supply the personnel needs in their low-incidence area.

(3) While 19.7 percent of those surveyed indicated that they received information from their institution's placement bureau concerning teaching vacancies in their area, 20.8 percent indicated that this information was not provided.

(4) When asked if school district hiring of temporary or uncertified personnel diminished the hiring of their program graduates, approximately 28.3 percent of those surveyed indicated that these hiring practices did not adversely affect the hiring of their graduates; 14.8 percent indicated a negative affect on the hiring of their program graduates.

Recommendations

Information on a wide range of topics and practices was reported by survey respondents. Based on these survey results, the following recommendations are made.

1. To conduct regional and National studies on the current and projected supply of special education personnel, a means of identifying and contacting individual programs should be developed. Some training programs, such as new and recently established programs, or small, low-visibility programs, are presently difficult to locate. The collection, integration, and reporting of training program information is left to State education agencies and national data pools. Thus, institutional special education programmatic information is typically condensed and integrated with data representative of higher education in general, and is not specifically reported in the various areas of special education. Often discrete special education categorical areas at an institution are identified by some global descriptor such as 'special education' or 'special education, general.' This obscures the programs having specific sequences, concentrations, or courses of study designed to prepare a teacher for a specific,

categorical area. An appropriate entity, such as a federally supported clearinghouse or a professional association, should assume the responsibility for collecting such needed program information on an annual basis from the individual institutions of higher education.

2. Most of the training programs surveyed tend to track the placement and location of their graduates. However, concern about the accuracy of the data projected for the number of future graduates was evident. Program coordinators repeatedly expressed uncertainty in making projections, even for small enrollment programs. One method for establishing a projection of future graduates may be to determine the number of students in the training pipeline with a predicted graduation date. Based on an understanding of teacher education programs, factors not controlled by program faculty may reduce this number. The authors believe that the projected number of program graduates in this survey may have been overestimated. These data should be viewed with some caution because the number of projected program graduates may have been based on current enrollments when other factors beyond program control may well limit capacity and the production of new personnel.

3. When the data on the number of graduates from training programs in 1990 and 1993 are compared (see Tables 5 and 7), results indicate that a very small number of student majors are being trained in certain areas, such as deaf-blind and bilingual special education. A number of conditions or practices may be influencing these numbers. Although a number of factors are likely to be involved, observations on two possible conditions will be offered.

First, certain certification practices could be responsible for minimal growth or decrease in the number of majors. A university training program may prepare and graduate students with a particular mix of content, focus, and categorical emphasis. The State education agency in which that program is located may or may not provide a matching certification for the training that has taken place. This is particularly true of the areas of trainable mentally handicapped, bilingual special education, severe/ profound, deaf-blind, and early childhood handicapped. Through written, unstructured comments, a number of survey respondents strongly articulated their concern that certification practices, or the lack of relevant certification standards, either lagged behind personnel training needs and school district demand, or hampered the placement and hiring of graduates with specific content skills and knowledge. Two cases in point are the preparation and certification of early childhood special education and bilingual special education personnel. Both areas are responding to critical demand from employers. Both are experiencing difficulties, depending upon State and location, with obtaining parallel or combined certification. In some settings, the student must take coursework in another department, such as early childhood education, add relevant special education coursework, and yet receive certification in only one area. With more coursework and time, a second certification may be obtained, thus allowing a teacher to work with a student who is identified under each area. A similar condition exists in bilingual special education. These somewhat rigid practices, in which there is

difficulty interfacing training needs and certification practices, have the effect of limiting the production of personnel in a number of need areas.

Second, there may be definitional and school district placement practices that affect hiring, and thus the training of graduates in certain low-incidence areas. For example, trainable mentally handicapped and severe/profound may be viewed as subareas of mental retardation in some States. Another area with an apparent definition problem is multihandicapped. Over the past decade multihandicapped definitions were seen to vary greatly by State and from year to year. As a result of these types of definition problems, obvious difficulties arise in identifying clearly specified or discrete preparation programs. Difficulty also exists in identifying and tracking graduates under widely varying labels and subcategories.

The lack of communication and interface between training programs, State certification processes, and school district needs works to the disadvantage of all. It is recommended that immediate State and national attention be given to alleviating the continuing problem of relationship between training, certification, and workplace needs. The problems appear to be endemic across the States, yet the final goals are similar: to supply, certify, and employ well prepared and well qualified professionals.

4. Studies such as this on preservice supply and capacity can be used to help identify anticipated growth patterns. In the present study, seven of ten low-incidence program areas projected a statistically significant growth pattern over a three-year period. Some of these areas, such as early childhood special education and bilingual special education, are relatively new, and are widely viewed as being needed in the immediate future. Emerging areas such as these may be suffering from a lack of State certification standards, program visibility, and problems related to program competition for faculty assignment or reassignment. Studies of the personnel needed and the number who are being prepared (supply) in these areas should be conducted periodically. This study looked at only a small (three-year) time span; if a longer time period had been used, perhaps a different projection in the number of personnel being prepared may have resulted. Further attention needs to be given to short- and long-term projections of personnel being prepared, and needed, and the validity of such projections.

5. While some success in recruiting students has been achieved according to the respondents, minimal change in the demographic configuration of trainees has occurred during the last five years. Specifically, a representation of 5 percent for disabled students, 7 percent to 9 percent for Black or Hispanic students, and 13 percent for male students in current training programs is inadequate. Only 17.9 percent of the surveyed teacher preparation programs have specifically recruited minority students; 16.9 percent reported recruitment success. Perhaps more creative program options, such as mentoring and other incentives, should be promoted. Programs that have reported success in recruiting minority students, males, or persons with disabilities need to be studied. The need for student financial support as a recruitment or retention

incentive should be monitored. Between 17.1 and 37.8 percent of student trainees on average were reported to receive some form of financial support. Should these forms of student assistance diminish, the number of trainees may be expected to decrease significantly.

6. Economic conditions have had some effect on the capacity of the training programs surveyed, but they have not caused disruption and curtailment of programs. These data were inconsistent, however. Over three-fourths of the programs surveyed reported that they had been adversely affected by economic circumstances. Conversely, nearly half of the programs indicated that they still have resources to enroll more students. One-third of the programs reported that they are operating at full capacity but are increasing in enrollment. One respondent stated, "Program conditions are healthy now with two of us (faculty) in this area; but lose one person and 50 percent of our capacity is gone; and that 50 percent might not be replaced." Many of these programs have a small number of specialized faculty. Despite some optimism, present and future programmatic needs should be closely monitored. Program faculty should conduct program audits based on existing commitments to students. Again, a single staff change, or a change in the delivery system at the local school level, could limit program capacity.

7. The programmatic and economic functions associated with program capacity goals should be examined by each training program. In times of changing national and local educational needs, a close look at the training capacity goals at the program level is in order. Approximately one-third of the respondents indicated that they were conducting long-range planning, yet they expressed difficulty in projecting the number of graduates expected in the near future. The capacity projection is not easy to establish, particularly when unknown conditions such as the economy, State and national reforms, and philosophical perspectives can intervene and alter program goals. Nevertheless, focused attention and planning that is related to department or program training capacity should become a vital part of program administration.

8. Program coordinators overall reported tracking or accessing information relevant to the employment patterns of their graduates. They were aware of the population, economic, and certification trends that affect their program. However, what steps were taken to deal with these changes and what effect, if any, these trends might have on both program and employment demands, was much less clear. Programs should not only track trends in employment and year-to-year comparisons of the numbers graduated and the number of employer requests, but also attend to the need to compile longitudinal data. Additionally, faculty may need to develop closer relationships with their institutional research personnel and alumni services offices in order to acquire and maintain relevant data on the employment of graduates.

9. Approximately one-third of the respondents indicated that only when training programs were combined in their State could an adequate supply of personnel needs in their specific low-incidence area be obtained. Under these conditions, where

the demand is demonstrable, the supply short, and capacity to train is open and available, what seems to be needed is more trainees in the preservice pipeline. If the lack of students in training is a critical point in the supply/demand cycle, direct, remedial actions (e.g., increased recruitment, specific incentives, and increased visibility of high job placement of graduates) would greatly improve supply over time.

Forty-nine percent of the respondents reported that the combined training program failed to meet the personnel needs of local education agencies and, therefore, resulted in a need to import low-incidence teachers to meet the need. Shortages may be intensified because of the tendency of teachers to stay in the State where they were trained. Shortages may be exacerbated in specific low-incidence areas by a lack of training programs in that particular State. For example, Illinois has two university programs for preparing teachers of the visually impaired, while the contiguous States of Wisconsin, Iowa, Indiana, and Missouri do not have any university-based programs for preparing teachers of the visually impaired. In addition, North Dakota and South Dakota do not have university-based programs for preparing teachers of the visually impaired. This leaves the majority of states in the North Central tier with dependence upon imported teachers or temporary, short-term programs to meet personnel needs. This intensifies the problem of securing appropriately trained personnel to teach the visually impaired in those states. The continued use of Office of Special Education Program funds to support regional training efforts is a positive approach to meeting specific personnel needs. Another positive approach to the training dilemma is for IHEs to establish training program consortia on a regional basis.

10. The effects of employers' hiring of temporary and uncertified personnel upon the perceived rate of hiring of program graduates were inconclusive. More program coordinators indicated that these hiring practices did not affect the hiring of their graduates than those who reported a negative effect. The hiring of temporary personnel should be monitored by program faculty as a gauge of external conditions that may have long-term effects on personnel demand.

11. Through an open-ended question concerning major program needs, the most frequently identified need was the critical shortage of personnel in rural and remote areas. The most frequent responses indicated that approximately 63 percent or more of program graduates were reported to remain in a given State or adjoining States. Therefore, employment patterns favoring urban and suburban settings are not surprising. Training programs should ensure that (a) trainees have an opportunity to obtain practicum experiences in rural settings, and (b) trainees are recruited from rural areas. These practices may effect a higher rate of employment in more remote geographic areas.

CONCLUSIONS

This report has presented the major findings of information gathered from a survey of certain special education teacher preparation programs. The focus was directed toward identifying the supply of recent graduates of low-incidence special education training programs, the capacity of institutions of higher education to prepare special education personnel, and factors that appear to influence this supply.

The findings have been presented and discussed in preceding sections of this report. Major findings were presented under six areas: (1) institutional program information, (2) certification practices, (3) student recruitment and retention, (4) program capacity, (5) graduate follow up, and (6) supply/demand projections. From the information available, major attention should be focused on institutional and State certification relationships, program training capacity and the projection of graduates, and student recruitment. These three specific areas of concern emerged from the major findings of the survey.

The various relationships between internal or program certification standards and external bodies, usually State certification agencies, need to be addressed and clarified. Closer working agreements that address the needs of local education agencies (employers), teacher preparation programs (trainers), and State education agencies (licensing authorities) would have the benefit of improving practice for all. Mutually agreed upon certification standards could do much to bridge the present gaps.

Both institutions of higher education and State education agencies could benefit from shared information concerning projected supply and need for personnel and institutional or programmatic identification on capacity to prepare personnel. Capacity should involve more than program mission, training objectives, or the schedule for offering courses. Capacity can and should involve historic and projected data, economic conditions, planning with other institutions and agencies, and a focus on local and regional needs.

As an outgrowth of capacity and supply concerns, attention should be given to the recruitment of students for training in specific program areas. In general, adequate resources were reported for preparing more personnel in most existing teacher training programs. This availability of training and, in many cases, accompanying financial support, needs to be made more visible to the public and to prospective students. Institutional encouragement and incentives also need to be directed toward attracting more minority and male candidates into teaching careers in special education.

It is hoped that the information contained in this report will be useful to a wide range of educators and policy makers in understanding the many components involved in establishing supply and capacity at the preservice level.

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Appendix A

Personnel Preparation Program
Supply and Capacity Survey Instrument

Part I Program Information

Name of Program Director/Coordinator _____

Program area you represent _____

Department mailing address _____

_____

_____

Your departmental phone number _____

1. Type of IHE (Institution of Higher Education)
   Select from each of the following:

   a. Public
   b. Rural
   c. Commuter
   d. Private, sectarian
   e. Urban
   f. Residential
   g. Private, non-sectarian
   h. Other:_____

2. Number of students enrolled in the IHE:

   a. No. students enrolled in the institution_____
   b. No. student majors enrolled in special educ._____
   c. No. student majors enrolled in your program area _____

3. Number of faculty in total special education program:

   a. Full-time (FTE):_____ b. Part-time:_____

4. Number of faculty in your program area:

   a. Full-time (FTE):_____ b. Part-time:_____

5. Analysis of full-time faculty in your program area:

   Instructions: Enter a number in each cell of the matrix below:

	Gender		Racial/Ethnic Background				Handicapping Conditions	
Rank	Male	Female	Caucasian	Black	Hispanic	Other	Yes	No
Professor								
Associate Professor								
Assistant Professor								
Instructor								
Other (Identify)								

6. Is your IHE recognized by a national or regional accrediting body? _____ Yes _____ No

If 'Yes', identify accrediting body: _____

7. Training program description: Briefly explain how a student receives basic training that leads to certification in your area. **Example:** "Through basic coursework, field experiences, and a 18 sem. hr. block of courses in mental retardation, the student can receive state certification in both trainable mentally handicapped and developmental disabilities. Student teaching in some area of retardation is required, but not necessarily in the TMH area itself."

_____

_____

_____

_____

_____

_____

_____

_____

8. Training program student data survey: In the space below, please provide the total number of students who most recently graduated from your training program (e.g., spring, summer, fall, 1990). **Report data only from the specific program area for which you are directing or associated. Be careful to count each student only once.** In the spaces marked '1993', please project the number of students you anticipate will graduate at some time during 1993. The projected number may be smaller or larger than the 1990 number.

Program Training Area:	Training Levels			
	Bachelor's Degree 1990	Graduate Certif. * 1990	Master's Degree 1990	EdD/Ph.D. Degree 1990
	1993	1993	1993	1993

* Count graduates here only if an initial state certification is awarded at this level.

Part 2 Certification

1. How could the state special education teacher certification for your area be described?

_____ generally categorical
_____ almost entirely non-categorical/multicategorical
_____ a mix of some categorical and some non-categorical
_____ other: _____

_____

2. Is the masters degree required for initial certification in your program area?

_____Yes _____ No

3. If more stringent standards of admission or teacher certification tests were implemented, would such factors reduce enrollment in your program area?

_____ Yes _____ No

4. How do certification requirements/processes in your state compare with those in effect **five** years ago? Mark all that apply.

_____ less stringent _____ about the same _____ more stringent
_____ more required coursework and experiences
_____ less required coursework and experiences
_____ more control at the training program level
_____ less control at the training program level
_____ other:_____
_____

5. Do you anticipate any major changes in your state's special education teacher certification process that would affect your training program area in the next **five** years?

_____ Yes _____ No

If 'Yes', what changes are anticipated? _____
_____
_____

Part 3 Enrollment/Recruitment

1. Contrasting the size of your training program with the enrollment of **five** years ago, how would you describe the present enrollments?

_____ Similar (steady) _____ Decreasing _____ Increasing

2. Demographic information on students admitted into your training area by approximate percent:

Male:_____% Black:_____% Hispanic:_____% Other:_____%
Female:_____% Caucasian:_____% Disabled:_____%

3. Has the percentage of minorities in your training program area changed significantly in the last five years?

_____ Remained the same _____ Increased _____ Decreased

4. Which of the following best describes the **recruitment** of students into your training program? Check as many as apply.

_____ do not need to recruit students
_____ have not specifically recruited students
_____ have recruited minority students
_____ have recruited for specific training areas
_____ other offices in the university are responsible for recruitment
_____ Specific areas recruited_____

5. What success has your program had with student recruitment efforts:

_____ Much _____ Moderate _____ Some _____ Minimal

6. If you have had success with recruitment efforts, what are some of the strategies that seemed to work best?

_____
_____

7. Are there any unique incentives your training program has been able to offer as a means of recruitment into your programs?

_____ Yes _____ No

If 'Yes', describe incentives that worked: _____

_____

8. Have recruitment efforts been addressed specifically to any minority groups?

_____ Yes _____ No

If 'Yes', which minority groups? _____

9. If you have had success with recruiting students from minority groups, what are some of the strategies that seemed to work best?

_____

_____

_____

10. Has your program instituted any type of student **retention** procedures?

_____ retention is not a problem
_____ retention is a problem, but we have not instituted any specific retention procedures
_____ specific retention activities have been initiated

11. If you have instituted student **retention** procedures, has there been observable success or results? _____ Yes _____ No

If 'Yes', explain:_____

_____

12. What approximate percentage of students in your training program receive direct support (e.g., traineeships, assistantships, tuition/fee waivers) from:

_____ Federal grant funds
_____ State support/grants
_____ local (university or departmental funds; non-federal)

Part 4 Program Capacity

1. Of the institutional conditions listed below, check any which have caused a reduction in the number of new graduates you produce.

_____ cutbacks in funding
_____ program elimination
_____ reduction of faculty
_____ increased costs coupled with more restrictive financial aid
_____ caps on enrollment
_____ cutbacks in supervision
_____ lower student enrollment

Other: _____

_____

_____

2. Have recent changes in population, teacher workforce, tax base, state mandates, certification processes, etc.:

(a) significantly changed the number of students you train?
_____ Yes _____ No

(b) significantly changed the number of employment requests for your graduates?
_____ Yes _____ No

3. How is your training program planning for future growth or reduction in the number of graduates produced?

_____ long term planning
_____ surveys of employers
_____ studying student admission policies
_____ other:_____
_____ surveys of graduates
_____ evaluating faculty hiring

4. Given the resources that you now have, check any of the following that apply to your program:

_____ program is training to full capacity at present and will probably remain at this level
_____ program faculty and resources would allow for more students who could be trained
_____ program resources are strained with the present number of students--cutbacks to a more reasonable student enrollment in this area will likely/should take place
_____ enrollment of majors is increasing
_____ enrollment of majors is decreasing
_____ other condition(s) affecting capacity: _____

Part 5 Graduate Follow-Up

1. Does your program track the employment or employment patterns of recent graduates?
_____ Yes _____ No

2. For your graduates, which of the following employment patterns are observed most frequently? Check as many as apply with a rating of most frequent to least frequent (1-5).

_____ college/university
_____ private agency
_____ state education agency

3. Which of the following employment geographic patterns describe your program graduates? Rate from most to least frequent.

_____ mostly in-state employment
_____ in state and adjoining states
_____ no particular geographic area; graduates take jobs throughout the country
_____ graduates tend to stay in the general region of the training program
_____ other:_____

Part 6 Supply/Demand

1. To the best of your knowledge, are the combined IHEs in your state supplying enough special education teachers in your program area to meet the current **total** need in your state?

_____ Yes _____ No

2. If your institution has a placement bureau/service, does it report to you lack of active applicants for teaching vacancies in your area?

_____ Yes _____ No

3. Regarding teacher supply, can your training program:

   (a) supply adequate numbers to meet the need? _____ Yes _____ No

   (b) supply adequate numbers only in conjunction with other IHE training programs: _____ Yes _____ No

   (c) combined IHEs cannot meet the need at present: _____ Yes _____ No

4. Do you perceive for your state/region that school district hiring of temporary/noncertified personnel adversely affects the hiring of your program graduates? _____ Yes _____ No

5. What conditions/factors do you perceive to be most related to the need for graduates from your training area? **Example:**

   "There seems to be a great need for teachers from our physical handicaps program to work with transition students, but most of our graduates do not choose to work with this age level."

   "We receive many requests from rural areas for teachers of the trainable mentally handicapped, but two negative conditions occur: We haven't enough graduates for the jobs available and few tend to choose the rural areas largely because of lower salaries and/or cultural opportunities."

Appendix B

IHE Supply and Capacity Survey Respondents

BILINGUAL SPECIAL EDUCATION

Bilingual Special Education
San Jose State University
School of Education
San Jose CA 95192

Bilingual Special Education
University of Colorado - Boulder
Campus Box 249
Boulder CO 80309

Bilingual Special Education
University of New Mexico
Dept. of Special Education
Albuquerque NM 87131

Bilingual Special Education
New Mexico State University
Box 3SPE
Las Cruces NM 88003

Bilingual Special Education
SUNY - Buffalo State
1300 Elmwood Ave.
Buffalo NY 14222

Bilingual Special Education
University of Texas - Austin
EDB 306
Austin TX 78712

CROSS-CATEGORICAL SPECIAL

Cross-Categorical Special Education
University of Arkansas
Dept. of Special Education
GRAD 317
Fayetteville AR 72703

Cross-Categorical Special Education
California State University - Fresno
Learning Handicaps (LD,EMR,BD)
5310 N. Campus Dr.
Fresno CA 93740

Cross-Categorical Special Education
University of California - L.A.
Dept. of Special Education
Los Angeles CA 90032

Cross-Categorical Special Education
Loyola Marymount University
Dept. of Special Education
Loyola Boulevard & West 80th
Los Angeles CA 90045

Cross-Categorical Special Education
University of Conneticut
Ed. Psych. Dept. Box U-64
Storrs CT 06269

Cross-Categorical Special Education
University of Florida
Department of Special Education
G315, Norman Hall
Gainesville FL 32611

Cross-Categorical Special Education
University of Georgia
College of Education
570 Aderhold Hall
Athens GA 30602

Cross-Categorical Special Education
Southern Illinois Univ.-Edwardsville
Special Education Department
Box 1147
Edwardsville IL 62026

Cross-Categorical Special Education
Dept. of Special Education
1800 Lincoln Ave.
Evansville IN 47722

Cross-Categorical Special Education
Indiana University at South Bend
Dept. of Special Education
1700 Misawalka Ave. PO Box 7111
South Bend IN 46634

Cross-Categorical Special Education
Calvin College
Dept. of Special Education
345 College Center
Grand Rapids MI 49546

Cross-Categorical Special Education
Northeast Missouri State University
Dept. of Special Education
Violette Hall 267B
Kirksville MO 63559

Cross-Categorical Special Education
Eastern Montana College
Dept. of Special Ed.
1500 N. 30th
Billings MT 59101

Cross-Categorical Special Education
Eastern Montana College
Special Education & Reading Dept.
1500 N. 30th Street
Billings MT 50101-0298

Cross-Categorical Special Education
Appalachian State University-COE
Dept. of Lang., Reading & Excep.
Boone NC 28607

Cross-Categorical Special Education
University of North Carolina
Special Education
0119 Peabody Hall CB# 3500
Chapel Hill NC 27515

Cross-Categorical Special Education
Univ. of North Carolina-Charlotte
Dept. of Teaching Specialties
Charlotte NC 28223

Cross-Categorical Special Education
North Carolina Central Univ.
School of Education
P.O. Box 19740
Durham NC 27707

Cross-Categorical Special Education
North Carolina State University
Dept. of Special Education
402 Poe Hall
Raleigh NC 27695-7801

Cross-Categorical Special Education
Keene State College
Dept. of Special Education
Elliot Hall
Keene NH 03431

Cross-Categorical Special Education
New Mexico Highlands University
Dept. of Education
Las Vegas NM 87701

Cross-Categorical Special Education
Western New Mexico University
Dept. of Special Education
Silver City NM 88061

Cross-Categorical Special Education
Buffalo State College
1300 Elmwood Ave.
Ketchum Hall 204D
Buffalo NY 14222

Cross-Categorical Special Education
Teachers College
Dept. of Special Education
Box 223
New York NY 10027

Cross-Categorical Special Education
OSU College of Education
356 Arps Hall
1945 N. High Street
Columbus OH 43210

Cross-Categorical Special Education
Central Wesleyan College
Dept. of Special Education
Central SC 29630

Cross-Categorical Special Education
Winthrop College
Dept. of Special Education
233 B. Breazeale Bldg.
Rock Hill SC 29733

Cross-Categorical Special Education
Northern State College
Dept. of Special Education
Box 734
Aberdeen SD 57401

Cross-Categorical Special Education
Augustana College
Dept. of Special Education
29th and Summit
Sioux Falls SD 57197

Cross-Categorical Special Education
Black Hills State College
Dept. of Special Education
J203
Spearfish SD 57783

Cross-Categorical Special Education
East Texas State University
Dept. of Psy. & Spec. Educ.
Commerce TX 75429

Cross-Categorical Special Education
University of North Texas
Dept. of Special Education
P.O. Box 13857
Denton TX 76203

Cross-Categorical Special Education
Texas Christian University
School of Education
Box 32925
Fort Worth TX 76129

Cross-Categorical Special Education
Central Washington University
Special Education
Black Hall #6
Elensburg WA 98926

Cross-Categorical Special Education
University of Washington
Office of Special Education
103 Miller Hall DQ-12
Seattle WA 98195

EARLY CHILDHOOD SPECIAL EDUCATION

Early Childhood Special Education
Auburn University
Rehabilitation & Special Ed. Dept.
1234 Haley Center
Auburn AL 36849

Early Childhood Special Education
California State University, L.A.
5151 State University Dr.
Los Angeles CA 90032

Early Childhood Special Education
George Washington University
2201 G. St. NW
Washington DC 20052

Early Childhood Special Education
University of Northern Iowa
Dept. of Special Education
Education Center 150
Cedar Falls IA 50614

Early Childhood Special Education
Idaho State University
Dept. of Special Education
Box 8059
Pocatello ID 83209

Early Childhood Special Education
Southern Illinois University
Pulliam Hall
Carbondale IL 62901

Early Childhood Special Education
University of Illinois
1310 S. 6th Street
Champaign IL 61820

Early Childhood Special Education
Northeastern Illinois University
Dept. of Special Education
5500 N. St. Louis Ave.
Chicago IL 60625

Early Childhood Special Education
Chicago State University
Dept. of Special Education
95th at King Drive, Ed 321
Chicago IL 60628

Early Childhood Special Education
Murray State University
Dept. of Special Education
Murray KY 42071

Early Childhood Special Education
University of SW Louisianna
Dept. of Curriculum & Instruction
P.O. Box 42051
Lafayette LA 70504-2051

Early Childhood Special Education
University of Minnesota - Duluth
120 Montague Hall
Duluth MN 55804

Early Childhood Special Education
Mankato State University
Special Education Dept.
Box #52
Mankato MN 56002-8400

Early Childhood Special Education
Moorhead State University
Special Education Department
207 Lomman
Moorhead MN 56560

Early Childhood Special Education
Minot State University
Dept. of Special Education
Minot ND 58702

Early Childhood Special Education
University of Nebraska-Lincoln
202 Barkley
Lincoln NE 68583-0732

Early Childhood Special Education
Vanderbilt University
Box 328 Peabody College
Nashville TN 37203

Early Childhood Special Education
University of Texas-Dallas
GR4.1 Box 830688
Richardson TX 75083-0688

Early Childhood Special Education
Incarnate Word College
Department of Special Education
4301 Broadway
San Antonio TX 78209

Early Childhood Special Education
Old Dominion University
Dept. of Child Study/ Special Ed.
Norfolk VA 23508-0136

Early Childhood Special Education
Arizona Commonwealth University
Teacher Education Division
1015 W. Main Street
Richmond VA 23284-2020

Early Childhood Special Education
University of Wisconsin-Eau Claire
Department of Special Education
Eau Claire WI 54701

Early Childhood Special Education
Cardinal Stretch College
6801 N. Yates Rd.
P.O. Box 388
Milwaukee WI 53217

Early Childhood Special Education
Univ. of Wisconsin-Whitewater
Dept. of Special Education
Whitewater WI 53190

HEARING IMPAIRED PROGRAM

Hearing Impaired Program
Jacksonville State University
Dept. of Special Ed.
Jacksonville AL 36265

Hearing Impaired Program
University of Montevallo
Dept. of Commun. Science & Disorders
Station 6720
Montevallo AL 35115

Hearing Impaired Program
The University of Alabama
Area of Special Education
P.O. Box 870231
Tuscaloosa AL 35487-0231

Hearing Impaired Program
University of Arkansas-Little Rock
College of Education
2801 South University Ave.
Little Rock AR 72204

Hearing Impaired Program
U.S.C./ John Tracy Clinic
806 W. Adams Blvd.
Los Angeles CA 90007

Hearing Impaired Program
California State University-Northridge
18111 Nordhoff Street
Northridge CA 91330

Hearing Impaired Program
University of Northern Colorado
Division of Special Education
McKee 318
Greely CO 80639

Hearing Impaired Program
Gallaulet University
800 Florida Ave., N.
Washington DC 20002

Hearing Impaired Program
University of North Florida
Dept. of Special Education
4567 St. Johns Bluff Road
South FL 32216

Hearing Impaired Program
Flagler College
Dept. of Education
St. Augustine FL 32084

Hearing Impaired Program
University of South Florida
Dept. of Communicology
CBA 255
Tampa FL 33620

Hearing Impaired Program
Georgia State University
University Plaza
Atlanta GA 30303-3083

Hearing Impaired Program
Idaho State University
Dept. of Speech Pathology & Audiology
Campus Box 8116
Pocatello ID 83209

Hearing Impaired Program
MacMurray College
447 E. College Ave.
Jacksonville IL 62650

Hearing Impaired Program
Illinois State University
Specialized Educational Development
Fairchild Hall 313H
Normal IL 61761

Hearing Impaired Program
Ball State University
Dept. of Special Education
2000 University Ave.
Muncie IN 47306

Hearing Impaired Program
University of Kansas
39th and Rainbow Blvd.
Kansas City KS 66103

Hearing Impaired Program
Eastern Kentucky University
Dept. of Special Education
245 Wallace Bldg.
Richmond KY 40475

Hearing Impaired Program
Southern University
P.O. Box 10552
Batton Rouge LA 70813

Hearing Impaired Program
University of Massachusetts
Dept. of Special Education
Amherst MA 01002

Hearing Impaired Program
Clarke School for the Deaf
Smith College
Morgan Hall
Northampton MA 01063

Hearing Impaired Program
Western Maryland College
Department of Education
Westminster MD 21157

Hearing Impaired Program
Michigan State University
Counseling, Ed. Psy., Spec. Ed.
443 Erickson Hall
East Lansing MI 48824

Hearing Impaired Program
Eastern Michigan University
Special Education Department
Ypsilanti MI 48197

Hearing Impaired Program
University of Minnesota
178 Pillsbury Dr. SE
Minneapolis MN 55455

Hearing Impaired Program
Southwest Missouri State University
Dept. of Communication Disorders
901 S. National
Springfield MO 65804

Hearing Impaired Program
Washington University/CID
Dept. of Speech & Hearing
818 S. Euclid Ave.
St. Louis MO 63110

Hearing Impaired Program
University of Southern Mississippi
Box 5092 Southern Station
Hattiesburg MS 39406-5092

Hearing Impaired Program
NC School for the Deaf
Teacher Prep. - Deaf/Hearing Impaired
Box D-46
Morganton NC 28655

Hearing Impaired Program
Barton College
Education Department
Wilson NC 27893

Hearing Impaired Program
Minot State College
Special Education Division
Box 145
Minot ND 58701

Hearing Impaired Program
University of Nebraska-Lincoln
Department of Special Education
204 Berkley Center
Lincoln NE 68583-0738

Hearing Impaired Program
University of Nebraska at Omaha
Dept. of Spec. Ed & Comm. Disorder
115 Kayser Hall
Omaha NE 68182-0054

Hearing Impaired Program
Trenton State College
Hillwood Lakes, CN 4700
Trenton NJ 08650-4700

Hearing Impaired Program
Kean College of New Jersey
Dept. of Special Ed.
Morris Ave.
Union NJ 07083

Hearing Impaired Program
Conisius College
2001 Main Street
Buffalo NY 14208

Hearing Impaired Program
Adelphi University
Dept. of Speech Arts & Commun. Dis.
Garden City NY 11530

Hearing Impaired Program
SUNY-Geneseo
Department of Special Ed.
Geneseo NY 14454

Hearing Impaired Program
University of Rochester
422 Lattimore Hall
Rochester NY 14627

Hearing Impaired Program
Bowling Green State University
College of Ed. & Allied Professions
Dept. of Spec. Ed., Room 440
Bowling Green OH 43560

Hearing Impaired Program
University of Cincinnati
Dept. of Special Education
Cincinnati OH 45221-0002

Hearing Impaired Program
University of Toledo
Speech-Language Pathology
2801 W. Bancraft
Toledo OH 43606

Hearing Impaired Program
The University of Toledo
Gillham Hall 5005
2801 W. Bancroft St.
Toledo OH 43606

Hearing Impaired Program
University of Science and Art of Oklahoma
SPHT Education Dept.
Box 82656
Chickasha OK 73018

Hearing Impaired Program
University of Oklahoma
Dept. of Communication Disorders
P.O. 26901
Oklahoma City OK 73190

Hearing Impaired Program
University of Tulsa
600 South College
Tulsa OK 74104

Hearing Impaired Program
Western Oregon State College
School of Education
Division of Special Education
Monmouth OR 97361

Hearing Impaired Program
Lewis & Clark College
Dept. of Special Education
Campus P.O. Box 73
Portland OR 97219

Hearing Impaired Program
Bloomsburg University
Dept. of Commun. Disorders & Spec. Ed.
NAVY Hall
Bloomsburg PA 17815

Hearing Impaired Program
Indiana University of Pennsylvania
Dept. of Spec. Ed. & Clinical Exper.
215 Davis Hall
Indiana PA 15705

Hearing Impaired Program
Converse College
Dept. of Special Education
Spartanburg SC 29301

Hearing Impaired Program
Augustana College
Dept. of Education
Box 2150, 29th & Summit
Sioux Fall SD 57197

Hearing Impaired Program
University of Tennessee
102 Claxton Addition
Knoxville TN 37996-3400

Hearing Impaired Program
University of Texas at Austin
Dept. of Communications
Austin TX 78712

Hearing Impaired Program
Lamar University
Dept. of Special Education
Beaumont TX 77710

Hearing Impaired Program
Texas Woman's University
Dept. of Commun. Sciences & Dis.
Box 23775
Denton TX 76204-1775

Hearing Impaired Program
Texas Tech. University
P.O. Box 4560
Lubbock TX 79409

Hearing Impaired Program
Stephen F. Austin State University
Box 13019 SFA Station
Nacogdoches TX 75962

Hearing Impaired Program
Utah State University
Dept. of Communication Disorders
Logan UT 84322-1000

Hearing Impaired Program
University of Utah
Tri Univ. Multi-sensory Impairment
221 MBH
Salt Lake City UT 84112

MILDLY HANDICAPPED PROGRAM

Mildly Handicapped Program
Pacific Oaks College
Dept. of Special Education
5 Westmoreland Pl.
Pasadena CA 91103

Mildly Handicapped Program
San Diego State University
North Education Bldg.
San Diego CA 92182

Mildly Handicapped Program
University of Delaware
Dept. of Educational Studies
College of Education
Newark DE 19716

Mildly Handicapped Program
Indiana University
Dept. of Special Education
ED 101
Bloomington IN 47405

Mildly Handicapped Program
Indiana State University
Special Education Dept.
Terre Haute IN 47809

Mildly Handicapped Program
Fort Hays State University
Hays KS 67601

Mildly Handicapped Program
University of SW Louisianna
Dept. of Curriculum and Instruction
P.O. Box 42051
Lafayette LA 70504-2051

Mildly Handicapped Program
Louisiana Tech.
Dept. of Behavioral Sciences
P.O. Box 10048
Ruston LA 71272

Mildly Handicapped Program
University of Southern Maine
Dept. of Special Education
407 Barley Hall
Gorban ME 04038

Mildly Handicapped Program
University of Minnesota, Duluth
Department of Child and Family Devel.
Hall 120
Duluth MN 55812

Mildly Handicapped Program
Mississippi State University
Dept. of Special Education
P.O. Box 6331
Mississippi State MS 39762

Mildly Handicapped Program
University of Mississippi
Dept. of Special Education
Dept. of Curriculum & Instruction
University MS 38677

Mildly Handicapped Program
Western Carolina University
208 Killian
Cullowhee NC 28723

Mildly Handicapped Program
University of Texas-El Paso
Dept. of Educational Psychology
El Paso TX 79968-0567

Mildly Handicapped Program
James Madison University
Department of Special Education
Harrisonburg VA 22807

MULTIHANDICAPPED PROGRAM

Multihandicapped Program
Auburn University
Dept. of Rehab. & Spec. Ed.
1230 Haley Center
Auburn AL 36849

Multihandicapped Program
University of South Alabama
College of Education
Mobile AL 36688

Multihandicapped Program
University of Arizona
Dept. of Special Ed. & Rehab.
Tucson AZ 85721

Multihandicapped Program
Indiana University-Purdue
902 West New York Street, ES 3124
Indianapolis IN 46202-5155

Multihandicapped Program
University of Akron
127 Carroll Hall
Akron OH 44325-5007

Multihandicapped Program
Ohio State University
1945 N. High St.
356 Arps Hall
Columbus OH 43210

Multihandicapped Program
Wright State University
Dept. of Special Education
373 Millett Hall
Dayton OH 45435

Multihandicapped Program
Kent State University
Department of Special Education
401 White Hall TDCS/SPED
Kent OH 44242-0001

Multihandicapped Program
Central State University
Dept. of Special Education
Box 127
Edmond OK 73034

PHYSICALLY IMPAIRED PROGRAM

Physically Impaired Program
University of Alabama
P.O. Box 870231
Tuscaloosa AL 35487-0231

Physically Impaired Program
San Francisco State University
Department of Special Education
1600 Holloway
San Francisco CA 94132

Physically Impaired Program
Illinois State University
Specialized Ed. Development
Normal IL 61761

Physically Impaired Program
Eastern Michigan University
235 Backham Bldg.
Ypsilanti MI 48197

Physically Impaired Program
University of Minnesota
178 Pillsbury Dr. S.E.
Minneapolis MN 55455

Physically Impaired Program
Columbia University
Dept. of Special Education
Box 223
New York NY 10027

Physically Impaired Program
Wright State University
373 Millett Hall
Dayton OH 45435

Physically Impaired Program
East Central University
Dept. of Special Education
Ada OK 74820

Physically Impaired Program
Kurtztown University
Dept. of Special Education
Kurtztown PA 19530

SEVERE/PROFOUND IMPAIRMENTS

Severe/Profound Impairments
University of Arkansas at Little Rock
Little Rock AR 72204

Severe/Profound Impairments
Arkansas State University
Dept. of Special Education
P.O. 940
State University AR 72467

Severe/Profound Impairments
California State University
Special Education
Educational Psychology Dept.
Hayward CA 94542

Severe/Profound Impairments
3801 W. Temple Ave.
Bldg. 5-263
Pomona CA 91768

Severe/Profound Impairments
California State University - Sacramento
School of Education
6000 J. Street
Sacramento CA 95819

Severe/Profound Impairments
San Diego State University
North Education Bldg.
San Diego CA 92182

Severe/Profound Impairments
San Jose State University
San Jose CA 95192

Severe/Profound Impairments
S. Conn. State University
Spec. Ed. Dept.-Davis Hall
New Haven CT 06515

Severe/Profound Impairments
University of Hawaii, Manon
1776 University Ave.
Honalulu HI 96822

Severe/Profound Impairments
Boise State University
Dept. of Teacher Education
Education Building, E 408
Boise ID 83725

Severe/Profound Impairments
University of Idaho
Dept. of Counseling & Spec. Ed.
Moscow ID 83843

Severe/Profound Impairments
University of Illinois
1310 S. Sixth St.
288 Education Building
Champaign IL 61820

Severe/Profound Impairments
University of Kentucky
229 Taylor Bldg. - Dept. of Special Ed.
Lexington KY 40506-0001

Severe/Profound Impairments
Simmons College
300 The Fenway
Boston MA 02115

Severe/Profound Impairments
Boston College
Dept. of Special Education
Chestnut Hill MA 02167

Severe/Profound Impairments
Fitchburg State College
Severe Special Needs
Fitchburg MA 01420

Severe/Profound Impairments
Westfield State College
Dept. of Special Education
Westfield MA 01086

Severe/Profound Impairments
Mankato State University
Dept. of Special Education
Mankato MN 56001

Severe/Profound Impairments
Ohio Dominican College
1216 Sunbury Rd.
Columbus OH 43219

Severe/Profound Impairments
University of Oregon
1791 Alder St.
Eugene OR 97405

Severe/Profound Impairments
Portland State University
P.O. Box 751
Portland OR 97207

Severe/Profound Impairments
Rhode Island College
Dept. of Special Education
600 Mt. Pleasant Ave.
Providence RI 02908

Severe/Profound Impairments
University of Texas at Dallas
Dept. of Human Development
P.O. Box 830688GR 41
Richardson TX 75083-0688

Severe/Profound Impairments
Utah State University
Dept. of Special Education
Logan UT 84322-2865

Severe/Profound Impairments
George Mason University
Center for Human Disabilities
Fairfax VA 22030

Severe/Profound Impairments
Norfolk State University
Special Education Dept.
Norfolk VA 23504

Severe/Profound Impairments
University of Washington
Dept of Special Education
WJ-10
Seattle WA 98195

Severe/Profound Impairments
West Virginia University
504 Allen Hall
Morgantown WV 26506

TRAINABLE MENTALLY HANDICAPPED

Trainable Mentally Handicapped
University of Northern Colorado
Division of Special Education
McKee 318
Greely CO 80639

Trainable Mentally Handicapped
West Georgia College
Dept. of Special Education
Carrolton GA 30118

Trainable Mentally Handicapped
Northeastern Illinois University
Dept. of Special Education
5500 N. St. Louis
Chicago IL 60625

Trainable Mentally Handicapped
Illinois State University
SED, TMH Certification Sequence
Fairchild Hall 313
Normal IL 61761

Trainable Mentally Handicapped
Emporia State University
1200 Commercial
Emporia KS 66801

Trainable Mentally Handicapped
Dept. of Special Education
Box 31 ESU
Emporia KS 66801

Trainable Mentally Handicapped
Western Kentucky University
College of Education & Beh. Science
Exceptional Child Education
Bowling Green KY 42101

Trainable Mentally Handicapped
University of Kentucky
229 T.E.B.
Lexington KY 40506

Trainable Mentally Handicapped
Cumberland College
Special Education Dept.
Williamsburg KY 40760

Trainable Mentally Handicapped
University of Maine at Farmington
86 Main Street
Farmington ME 04938

Trainable Mentally Handicapped
St. Cloud State University
Dept. of Special Education
St. Cloud MN 56301

Trainable Mentally Handicapped
Creighton University
Mild/Moderately Handicapped
24 and California
Omaha NE 68178

Trainable Mentally Handicapped
College of Charleston
School of Education
Charleston SC 29424

Trainable Mentally Handicapped
Winthrop College
Dept. of Special Education
233 B. Breazeale Bldg.
Rock Hill SC 29733

Trainable Mentally Handicapped
Radford University
Dept. of Special Education
Box 5820 RU Station
Radford VA 24142

VISUALLY IMPAIRED PROGRAM

Visually Impaired Program
University of Alabama - Birmingham
Division of Occupational Therapy
Regional Tech. Institute, Room 114
Birmingham AL 35294

Visually Impaired Program
Talladega College
626 W. Battle Street
Talladega AL 35160

Visually Impaired Program
University of Arizona
Division of Spec. Ed. & Rehab.
Tucson AZ 85721

Visually Impaired Program
University of Arizona
Special Education/Rehab.
Tucson AZ 85721

Visually Impaired Program
San Francisco State University
Dept. of Special Ed.
1600 Holloway Ave.
San Francisco CA 94132

Visually Impaired Program
University of Northern Colorado
Dept of Special Education
McKee Hall 318
Greely CO 80639

Visually Impaired Program
Florida State University
209 Carothers Hall, B172
Tallahassee FL 32306

Visually Impaired Program
Northern Illinois University
Learning Development & Special Education
Graham Hall
Dekalb IL 60115

Visually Impaired Program
Illinois State University
Specialized Ed. Development
Fairchild Hall 321
Normal IL 61761

Visually Impaired Program
University of Kansas
Dept. of Special Education
3001 Dole
Lawrence KS 66045

Visually Impaired Program
Boston College
Dept. of Special Education & Rehab.
McGuinn Hall B-29
Chestnut Hill MA 02167

Visually Impaired Program
Boston College
Dept. of Special Ed. & Rehab.
McGuinn Hall B-29
Chestnut Hill MA 02167

Visually Impaired Program
Michigan State University
331 Erickson Hall
East Lansing MI 48824

Visually Impaired Program
Western Michigan University
Dept. of Special Ed.
Sagren Hall 3506
Kalamazoo MI 49008

Visually Impaired Program
Eastern Michigan University
Dept. of Special Ed.
215 Rackham
Ypsilanti MI 48197

Visually Impaired Program
University of Minnesota
178 Pillsbury Dr. SE
Minneapolis MN 55455

Visually Impaired Program
Jackson State University
Dept. of Education & Rehabiliation
Jackson MS 39217

Visually Impaired Program
Mississippi State University
Rehab. Research & Training Center
P.O. Drawer 6189
Mississippi State MS 39762

Visually Impaired Program
University of North Dakota
Dept. of CTL/ Special Education
Box 8143 University Station
Grand Forks ND 58202

Visually Impaired Program
D'Youville College
Dept. of Special Ed.
320 Porter Ave.
Buffalo NY 14201

Visually Impaired Program
Columbia University, Teachers College
Dept. of Special Ed.
Box 223
New York NY 10027

Visually Impaired Program
University of Toledo
Dept. of Special Ed.
Toledo OH 43606

Visually Impaired Program
Portland State University
Dept. of Special Education
P.O. Box 751
Portland OR 97207

Visually Impaired Program
Kurtztown University
Dept. of Special Education
Kurtztown PA 19530

Visually Impaired Program
Pennsylvania College of Optometry
1200 W. Godfrey Ave.
Philadelphia PA 19141

Visually Impaired Program
University of Pittsburgh
4F29 Forbes Quad
Pittsburgh PA 15260

Visually Impaired Program
University of South Carolina
College of Education
Columbia SC 29208

Visually Impaired Program
Northern State College
Dept. of Special Education
Box 734
Aberdeen SD 57401

Visually Impaired Program
Vanderbilt University
Peabody College at Vanderbilt
Dept. of Special Education
Nashville TN 37203

Visually Impaired Program
Texas Tech. University
Dept. of Special Ed.
P.O. Box 4560
Lubbock TX 79409

Visually Impaired Program
University of Utah
221 MBH
Salt Lake City UT 84112

APPENDIX C

Survey of Nonrespondents

After data analysis had been completed on the 233 responses to the survey, a sample of 35 percent (n=54) of the 152 nonrespondents was surveyed by telephone to obtain information on reasons for nonresponse. A letter was sent to each program area faculty contact explaining the request for survey nonrespondent information, along with a short list of questions for the faculty contact and a copy of the original survey. Fifty-one of the programs were contacted by telephone. A telephone interview that focused on the nonrespondent questions was then conducted.

The sample was determined to have adequately represented characteristics of the population of IHEs such as public (67 percent) and private (33 percent), and the four regions of the country utilized in the main study. Six of the ten program areas were represented in the nonresponse sample. The results of this survey of nonrespondents are summarized in the following discussion. The percentage of these respondents (n=51) is reported for key items.

The program area faculty contact person was asked to indicate a reason for initial nonresponse to the survey. Twenty-six (51 percent) did not recall having received the original survey; eleven (21.6 percent) stated that another program faculty member should have received the original survey. Further, an open-ended item asking for other reasons showed that fourteen (27.5 percent) stated that no such program currently existed, two (3.9 percent) stated that a wrong address had been used for the original survey, and two (3.9 percent) had not been available due to a sabbatical leave. Fifteen (29.4 percent) mentioned other specific reasons. Eighteen (35.3 percent) did not answer the question.

The above information is indicative of a larger number of 'out of scope' programs than originally identified in the main study. If 27 percent of all nonrespondents had 'out of scope' programs, as did this sample, there would have been a higher response rate. Further, 37 of the 51 contacts indicated nonresponse because of problems with original directory information; e.g., no program, wrong address, or wrong person. Although some response rates to the main study fall below 70 percent, the true response rates would be increased by addition to the out-of-scope cases and by corrections to the directory information. Based on the information provided in this analysis of information from nonrespondents, the authors believe that a higher level of confidence can be placed in the data yielded in the main study.

Other questions were asked of the faculty contacts concerning the ease or difficulty in obtaining information to report in the survey. The respondent was told that provision of this information would be beneficial in structuring future surveys of this nature. Respondent information is summarized in Table 1A and in the following discussion. Missing percentages are high in this section because of the large number of 'out of scope' programs or faculty responding that they were the incorrect contact person.

Nonrespondents who examined the original survey indicated that the problems affecting their response were: lack of time to complete the survey (31.4 percent), lack of graduate follow-up information (27.5 percent), overall length of the survey (23.5 percent), and locating student financial support information (21.6 percent). Reporting the number of student majors, number of faculty and other programmatic information did not appear to be a problem. The information gained from this follow-up study of nonrespondents will be useful in guiding the development of subsequent supply and capacity surveys.

Table 1A

Questions Asked in Nonrespondent Follow-up Study

Questions asked of Nonrespondents	Yes		No		Missing	
	N	Percent	N	Percent	N	Percent
Was time availability a problem?	16	31.4	5	9.8	30	58.8
Was length of the survey a problem?	12	23.5	10	19.6	29	56.9
Was locating program information a problem?	5	9.8	16	31.4	30	58.8
Was graduate follow-up data a problem?	14	27.5	9	17.6	28	54.9
Was reporting program capacity information a problem?	3	5.9	17	33.3	31	60.8
Was reporting recruitment information a problem?	9	17.6	12	23.5	30	58.8
Was reporting program certification processes a problem?	3	5.9	18	35.3	30	58.8
Was reporting State supply and demand information a problem?	7	13.7	14	27.5	30	58.8
Was locating the number of majors in special education a problem?	6	11.8	17	33.3	28	54.9
Was locating the number of majors in your specific area a problem?	4	7.8	19	37.3	28	54.9
Was locating the number of full- and part-time faculty a problem?	1	2.0	20	39.2	30	58.8
Was locating the number of students receiving financial support a problem?	11	21.6	11	21.6	29	56.9
Was there difficulty in projecting the number of 1993 graduates?	8	15.7	13	25.5	30	58.8